

State of Hawaii
DEPARTMENT OF LAND AND NATURAL RESOURCES
Division of Forestry and Wildlife
Honolulu, Hawaii 96813

November 18, 2005

Chairperson and Members
Board of Land and Natural Resources
State of Hawaii
Honolulu, Hawaii

Land Board Members:

SUBJECT: REQUEST FOR APPROVAL TO AUTHORIZE THE CHAIRPERSON
TO AMEND CONTRACT WITH SOUTHWEST FENCE AND SUPPLY
COMPANY TO INSTALL UNGULATE-PROOF PERIMETER
FENCE WITHIN THE HELEMANO DRAINAGE OF THE
KOOLAU MOUNTAINS, OAHU

This Board Submittal requests approval to authorize the Chairperson to amend the contractual relationship previously approved by the Board on April 22, 2005, with Southwest Fence and Supply Company, to install ungulate-proof fencing within the Helemano Drainage of the Koolau Mountains, Oahu, to increase the total value of the contract to \$150,000.

BACKGROUND:

As noted in the previous submittal, the Koolau Mountains Watershed Partnership (KMWP) was formed to protect the forested watershed of the Koolau Mountains. Pursuant to the KMWP Management Plan and goals, the Department of Land and Natural Resources, Kamehameha Schools, the U.S. Army, and the U.S. Fish and Wildlife Service, joined in a cooperative effort to construct conservation fencing encircling the upper reaches of the Helemano Stream Drainage in the Koolau Mountains. The ultimate goal of the project is to remove feral pigs from within the fence, protecting the site as a natural ecosystem and providing an opportunity for rare plant reintroduction. The project has already undergone the environmental review process, and the Board approved the Conservation District Use application for this project August 22, 2003. The Invitation for Bids for this project was published on the State Procurement Office website on January 25, 2005 (IFB No. IFB-DOFAW-05-O2). Bids were opened on February 25, 2005 and Southwest Fence and Supply Company was identified as the lowest responsible and responsive bidder whose bid met the requirements and criteria set forth in the invitation, with a total estimated bid price of \$14.77 per linear foot.

ITEM C-1

As noted in the previous submittal, funding for the fence construction was to come from multiple sources, with the State Department of Land and Natural Resources contracting for a portion (\$90,000) and the Pacific Cooperative Studies Unit of the University of Hawaii (PSCU/UH) contracting for the remaining amount needed to build the fence. The Board authorized the Chairperson to execute a Contract for Goods and Services in the amount of \$90,000 with Southwest Fence and Supply Company, subject to approval as to form by the Attorney General's Office, on April 22, 2005. The contract between the State and Southwest Fence and Supply Company was executed and effective as of July 15, 2005 (Contract No. CF-DOFAW-05-02).

CONTRACT AMENDMENT PROVISIONS:

Due to delays in the contracting process, the grant providing the funding to PCSU/UH expired, and was unable to be used for the construction of fencing. KMWP applied for and secured additional funding from the U.S. Fish and Wildlife Service, in the amount of \$38,785, through a Partners for Fish and Wildlife grant awarded to the State for administration (DLNR, Division of Forestry and Wildlife, Grant Number 122005G014). This Federal funding will be supplemented with State funding from the Natural Area Reserve fund, or from private donations as needed to provide the remaining funding (\$60,000) needed to complete construction of this fencing.

Thus, the Division requests the Board's approval to authorize the Chairperson to amend the contract to increase the total amount of the contract to \$150,000, to ensure completion of the proposed Helemano conservation fencing. (See Exhibit 1.) Upon approval by the Board, the Division will submit the contract amendment for review and approval as to form by the Attorney General, and process the document for signature by the Chairperson and Southwest Fence and Supply Company.

RECOMMENDATION:


That the Board authorize the Chairperson to amend the contract with Southwest Fence and Supply Company (Contract No. CF-DOFAW-05-02), to increase the total value of the contract to \$150,000, subject to approval as to form by the Attorney General's Office.

Respectfully submitted,



PAUL J. CONRY, Administrator
Division of Forestry and Wildlife

APPROVED FOR SUBMITTAL:



PETER T. YOUNG, Chairperson
Board of Land and Natural Resources

STATE OF HAWAII

SUPPLEMENTAL CONTRACT NO. 1
TO CONTRACT No. IFB-DOFAW-05-02
(Insert contract number or other identifying information)

This Supplemental Contract No. 1, executed on the respective dates indicated below, is effective as of _____, 20____, between the _____ Department of Land & Natural Resources
(Insert name of state department, agency, board, or commission), State of Hawaii ("STATE"), by its Chairperson
(Insert title of state officer executing contract)
(hereafter also referred to as the HEAD OF THE PURCHASING AGENCY ("HOPA")), whose address is 1151 Punchbowl Street; Honolulu, HI 96813

and Southwest Fence and Supply,
("CONTRACTOR"), a corporation
(Insert corporation, partnership, joint venture, sole proprietorship, or other legal form of the CONTRACTOR)
under the laws of the State of California,
whose business address and taxpayer identification number are as follows:
18042 Sycamore Ave., Patterson, CA, 95363; FEIN No. 943261633

RECITALS

A. WHEREAS, the STATE and the CONTRACTOR entered into Contract IFB-DOFAW-05-02

(Insert contract number or other identifying information)

dated July 15, 2005, which was amended by Supplemental Contract No(s).
(n/a), dated (n/a) (hereafter

collectively referred to as "Contract") whereby the CONTRACTOR agreed to provide the goods or services, or both, described in the Contract; and

B. WHEREAS, the parties now desire to amend the Contract.

NOW, THEREFORE, the STATE and the CONTRACTOR mutually agree to amend the Contract as follows:

(Check applicable box(es))

- ☒ Amend the SCOPE OF SERVICES according to the terms set forth in Attachment S1, which is hereby made a part of the Contract.
- ☒ Amend the COMPENSATION AND PAYMENT SCHEDULE according to the terms set forth in Attachment S2, which is hereby made a part of the Contract.
- ☐ Amend the TIME OF PERFORMANCE according to the terms set forth in Attachment S3, which is hereby made a part of the Contract.
- ☐ Amend the SPECIAL CONDITIONS according to the terms set forth in the SUPPLEMENTAL SPECIAL CONDITIONS, which is hereby made a part of the Contract.

A tax clearance certificate from the State of Hawaii ☐ is ☒ is not required to be submitted to the STATE prior to commencing any performance under this Supplemental Contract.

A tax clearance certificate from the Internal Revenue Service ☐ is ☒ is not required to be submitted to the STATE prior to commencing any performance under this Supplemental Contract.

The entire Contract, as amended herein, shall remain in full force and effect.

IN VIEW OF THE ABOVE, the parties execute this Contract by their signatures,
on the dates below, to be effective as of the date first above written.

STATE

(Signature)

(Print Name)

(Print Title)

(Date)

CORPORATE SEAL
(If available)

CONTRACTOR

(Insert Name of Contractor)

(Signature)

(Print Name)

(Print Title)

*

(Date)

APPROVED AS TO FORM:

Deputy Attorney General

*Evidence of authority of the CONTRACTOR'S representative to sign this Contract for the CONTRACTOR must be attached.

CONTRACTOR'S ACKNOWLEDGMENT

STATE OF _____)
_____ COUNTY OF _____) SS.

On this _____ day of _____, 20____, before me appeared _____ and _____, to me known, to be the person(s) described in and, who, being by me duly sworn, did say that he/she/they is/are _____ and _____ of _____, the CONTRACTOR named in the foregoing instrument, and that he/she/they is/are authorized to sign said instrument on behalf of the CONTRACTOR, and acknowledges that he/she/they executed said instrument as the free act and deed of the CONTRACTOR.

(Notary Seal)

(Signature)

(Print Name)

Notary Public, State of _____

My commission expires: _____

SCOPE OF SERVICES

The Contractor agrees to perform the following work: Install a Perimeter Fence within the Helemano Drainage of the Koolau Mountains, Oahu, for the Department of Land and Natural Resources, Division of Forestry and Wildlife, for a period of twelve (12) months commencing from the official date on the Notice to Proceed all in strict accordance with the terms and conditions of Contract No. IFB-DOFAW-05-02 and this Supplemental Contract No. 1.

The total estimated amount of fencing to be installed under this Agreement is 9,050 linear feet (LF).

COMPENSATION AND PAYMENT SCHEDULE

The State agrees to pay the Contractor for the actual linear footage of fencing installed at the quoted bid price per 1,000 linear feet (LF) (\$14,770/1,000 LF) and at the quoted bid price per linear foot (LF) for amounts less than 1,000 linear feet (\$14.77/LF) on a payment schedule as outlined in Contract No. IFB-DOFAW-05-02. The total estimated payment under Contract No. IFB-DOFAW-05-02 and this Supplemental Contract No. 1 shall not exceed one-hundred and fifty thousand dollars and no cents (\$150,000.00).

TIME OF PERFORMANCE

As specified in Contract No. IFB-DOFAW-05-02, the time of performance is twelve (12) months, commencing from the official date on the Notice to Proceed.

State of Hawaii
DEPARTMENT OF LAND AND NATURAL RESOURCES
Division of Forestry and Wildlife
Honolulu, Hawaii 96813

November 18, 2005

Chairperson and Members
Board of Land and Natural Resources
State of Hawaii
Honolulu, Hawaii

Land Board Members:

SUBJECT: REQUEST FOR APPROVAL TO ENTER INTO A CONTRACT WITH
GARCIA & ASSOCIATES TO DEVELOP A CULTURAL RESOURCE
MANAGEMENT PLAN FOR AHIHI-KINAU NATURAL AREA
RESERVE AND KEONEOIO (LA PEROUSE BAY) ON THE
ISLAND OF MAUI, HAWAII

This Board Submittal requests authorization for the Chairperson to enter into a contract with Garcia & Associates for the development of a Cultural Resource Management Plan (CRMP) for Ahihi-Kinau Natural Area Reserve (TMK 2-1-004: 073, 113) and Keoneoio (TMK 2-1-004: 110, 075) on the island of Maui, Hawaii, subject to certification of the availability of funds and approval as to form by the Attorney General.

BACKGROUND:

The southeastern coastline of Maui is frequently visited by visitors and residents alike, attracted by its protected bays, scenic beaches, and abundance of wildlife. Within this popular area is Ahihi-Kinau (a State Natural Area Reserve) and Keoneoio, also known as La Perouse Bay (State Unencumbered Lands).

Ahihi-Kinau was the first reserve designated as part of the State Natural Area Reserve System. Like all Natural Area Reserves (NAR), it was designated to preserve and protect representative samples of unique biological and geological ecosystems, so future generations can enjoy, study, and experience Hawaii's natural and cultural heritage. Ahihi-Kinau encompasses approximately 1,200 acres on land and 800 acres in the ocean. Like Ahihi-Kinau NAR, Keoneoio is also rugged lava containing fragile coastal habitats and remnants of Hawaiian cultural sites. It stretches for 65 acres along the coast and is home to an abundance of cultural sites.

It is well documented that both Ahihi-Kinau and Keoneoio have been utilized in the past by native Hawaiians for habitation, recreation, and religious ceremonies. Remnant cultural sites still exist in the area, but are threatened by activities associated with an increasing number of visitors. In a recent survey conducted by the Hawaii Wildlife Fund, an estimated 700 visitors frequented the area a day, equaling nearly 10% of Maui's visitor population per year.

The unmanaged visitors and residents who camp, hike, and explore in the area have unknowingly contributed to the degradation of these special sites, by altering formations and removing rocks. In addition, people have also knowingly damaged cultural sites by stealing artifacts, vandalizing, and defecating on sites.

In FY2003, the Department of Land and Natural Resources applied for and received a grant from the Hawaii Tourism Authority (HTA) in hopes of increasing management activity and improvements to the area from Ahihi-Kinau to Keoneoio to help protect its resources. One element of this grant proposal was to support the development of a Cultural Resource Management Plan (CRMP) to better understand and manage the abundant cultural resources in the area.

The overall goal of the Department is to protect this culturally significant area, by developing a long-term plan to manage and protect its cultural sites, while allowing for some management/educational use if suitable. However, before any long-term management activities occur, it is essential that a thorough record and understanding of the existing sites be obtained. Past cultural surveys have been conducted in areas of Keoneoio, but no thorough surveys have occurred in Ahihi-Kinau. This information is much needed to prioritize management activities in the area, and design a long-term cultural management plan.

The development of a CRMP includes: (1) gathering cultural information for the area through community interviews and literature searches, (2) conducting a survey of cultural sites on State lands in Ahihi-Kinau and Keoneoio, and (3) designing a plan and method to prioritize the protection of the known sites in the project area. The procurement process to select a consultant to produce a CRMP was initiated September, 2004.

RFP PROTEST and PROTEST DISMISSAL

A Request for Proposals was posted on the State Procurement Office website on September 7, 2004, with a proposal submission deadline of October 15, 2004. The proposal submitted by Cultural Surveys Hawaii was initially ranked the highest, but was later rejected for being submitted after the deadline. The next highest ranked qualified proposal was submitted by Garcia and Associates, and when the Department indicated an intent to award the contract to Garcia and Associates, Cultural Surveys Hawaii filed a procurement protest. The Department denied the protest and Cultural Surveys Hawaii requested an administrative hearing.

A hearing officer with the Department of Commerce and Consumer Affairs Office of Administrative Hearings administered the hearing and dismissed the protest. Attachment 1 contains the Hearing Officer's Findings of Fact, Conclusions of Law, and Order Granting Respondent's Motion to Dismiss Request for Hearing.

The Department now seeks authorization to enter into a contract with Garcia and Associates, to develop a Cultural Resources Management Plan for Ahihi-Kinau and Keoneoio.

CONTRACT PROVISIONS

The proposed contract will provide \$100,000 of State funds to Garcia & Associates to produce a CRMP for Ahihi-Kinau NAR and Keoneoio (La Perouse Bay). Their proposal can be found as Attachment 2. The term of the contract will be one (1) year from the Contract Start Date with an option to extend, if mutually agreeable, by up to one (1) additional twelve-month period. The contract will be funded by the grant received from the Hawaii Tourism Authority. Upon approval by the Board, the Division will submit the contract for review and approval as to form by the Attorney General, and process the document for signature by the Chairperson.

RECOMMENDATION:

That the Board authorize the Chairperson to negotiate and execute a Contract for Services for one year in the amount of \$100,000 with Garcia & Associates subject to:

1. Certification of availability of funds by the Comptroller.
2. Approval as to form by the Attorney General's Office.

Respectfully submitted,



PAUL J. CONRY, Administrator
Division of Forestry and Wildlife

Attachments

APPROVED FOR SUBMITTAL:



PETER T. YOUNG, Chairperson
Board of Land and Natural Resources

DEPT. OF COMMERCE
AND CONSUMER AFFAIRS

2005 OCT -6 P 1:36

HEARINGS OFFICE

OFFICE OF ADMINISTRATIVE HEARINGS
DEPARTMENT OF COMMERCE AND CONSUMER AFFAIRS
STATE OF HAWAII

In the Matter of)	PCH-2005-4
)	
CULTURAL SURVEYS HAWAII, INC.,)	HEARINGS OFFICER'S
)	FINDINGS OF FACT,
Petitioner,)	CONCLUSIONS OF LAW,
)	AND ORDER GRANTING
vs.)	RESPONDENT'S MOTION
)	TO DISMISS REQUEST
DEPARTMENT OF LAND AND)	FOR HEARING
NATURAL RESOURCES,)	
STATE OF HAWAII,)	
)	
Respondent.)	

HEARINGS OFFICER'S FINDINGS OF FACT,
CONCLUSIONS OF LAW, AND ORDER GRANTING
RESPONDENT'S MOTION TO DISMISS REQUEST FOR HEARING

I. INTRODUCTION

On June 28, 2005, Cultural Surveys Hawaii, Inc. ("Petitioner"), filed a request for administrative review of the Department of Land and Natural Resources, State of Hawaii's ("Respondent") June 21, 2005 decision to deny Petitioner's December 13, 2004 protest in connection with a project designated as RFP-AK04-01, "Services to Develop a Cultural Resource Management Plan for Ahihi-Kinohi Natural Area Reserve and Keoneoio." Petitioner's request for administrative review was made pursuant to Hawaii Revised Statutes ("HRS") §103D-709. The matter was thereafter set for hearing and the Notice of Hearing and Pre-Hearing Conference was duly served on the parties.

K. K. K.

On August 22, 2005, Respondent filed the instant motion to dismiss Petitioner's request for hearing. On August 31, 2005, the motion came before the undersigned Hearings Officer; Pamela K. Matsukawa, Esq. appearing for Respondent and Marshall D. Chinen, Esq. appearing for Petitioner.

Having reviewed and considered the motion, memoranda, declarations and exhibits attached thereto along with the argument of counsel, the Hearings Officer hereby renders the following findings of fact, conclusions of law and order.

II. FINDINGS OF FACT

1. On September 7, 2004, Respondent issued a request for proposals ("RFP") in connection with a project designated as RFP-AK04-01, "Services to Develop a Cultural Resource Management Plan for Ahihi-Kinau Natural Area Reserve and Keoneoio." ("Project").
2. The RFP provided that sealed offers would be received up to 2:00 p.m. on October 15, 2004, at the Division of Forestry and Wildlife, Maui Branch Office, 54 South High Street, Wailuku, Hawaii 96793.
3. On the morning of October 15, 2004, a representative of Petitioner telephoned Matt Ramsey ("Ramsey"). Ramsey is a Natural Area Reserve Specialist III for Respondent's Division of Forestry and Wildlife.
4. Petitioner's representative requested an extension of time to Monday, October 18, 2004, to submit its proposal.
5. Ramsey informed Petitioner's representative that if Petitioner delivered a letter of intent to submit a proposal on October 15, 2004, Petitioner could submit its proposal on October 18, 2004.
6. Petitioner submitted its letter of intent to Respondent on October 15, 2004 as directed by Ramsey.
7. A total of six proposals were submitted to Respondent in response to the RFP by October 15, 2004.
8. Petitioner submitted its proposal on October 18, 2004.

9. No addendum was issued by Respondent changing the deadline for the submission of proposals from October 15, 2004 to October 18, 2004. Nor were the other offerors otherwise notified of an extension of the submission deadline to October 18, 2004.

10. On November 15, 2004, Ramsey notified Petitioner of Respondent's intent to award the contract for the Project to Petitioner as the first-ranked offeror. However, on December 6, 2004, another offeror objected to Respondent's intent to award the contract to Petitioner on the basis that Petitioner's proposal had been submitted late.

11. On December 6, 2004, Ramsey cancelled the intent to award the contract to Petitioner and resolicited the RFP. On December 13, 2004, Ramsey withdrew the resolicitation in order to award the contract to the second-ranked offeror.

12. On December 13, 2004, Petitioner protested Respondent's decision to award the contract to the second-ranked offeror.

13. On June 21, 2005, Respondent denied the protest.

14. On June 28, 2005, Petitioner filed the instant request for administrative review.

III. CONCLUSIONS OF LAW

If any of the following conclusions of law shall be deemed to be findings of fact, the Hearings Officer intends that every such conclusion of law shall be construed as a finding of fact.

The salient facts are not in dispute. In September 2004, Respondent issued the RFP. The RFP required that proposals be submitted by October 15, 2004. On October 15, 2004, a representative of Petitioner telephoned Ramsey and requested an extension to October 18, 2004 to submit its proposal. Ramsey agreed to the request and on October 18, 2004, Petitioner submitted its proposal. No addendum was issued by Respondent changing the deadline for the submission of proposals to October 18, 2004.

Petitioner does not dispute that Ramsey lacked the actual authority to grant the extension. Instead, Petitioner contends that its proposal would have been timely but for Ramsey's "mishandling" of the request by agreeing to the extension and failing to properly amend the RFP to reflect the extension. Therefore, according to Petitioner, its proposal

cannot be deemed late. Petitioner's argument is based on the lateness exception set forth in Hawaii Administrative Rules ("HAR") §3-122-16.08(a) which states:

Late bid or proposal, late withdrawal, and late modification.

(a) Any notice of withdrawal, notice of modification of a bid or proposal with the actual modifications, or any bid or proposal is late when received at the place designated for receipt and opening of an offer after the established due date, additionally defined in section 3-122-16.06(a), *except when received before contract award and would have been timely but for the action or inaction of personnel within the procurement activity*

(Emphasis added).

Respondent, on the other hand, argues that the exception is not applicable where the action of personnel within the procurement activity would otherwise violate the provisions of and safeguards provided by HRS Chapter 103D and its implementing rules. Respondent correctly points out that the granting of the extension by Ramsey violated HAR §3-122-16.06 which, among other things, requires that an addendum be issued to the other offerors for amendments involving material changes to the solicitation.¹

In construing HRS Chapter 103D and its implementing rules, the foremost obligation is to ascertain and give effect to the intention of the Legislature which is to be construed primarily from the language of the statute itself. The language must be read in the context of the entire statute and construed in a manner that is consistent with its purpose. *Hawaii Newspaper Agency, et. al v. State Dept. of Accounting & General Services, PCH 99-2; Milici Valenti Ng Pack v. State Dept. of Accounting & General Services, PCH 99-3 (April 16, 1999)(Consolidated)*. Clearly, the application of the lateness exception here would circumvent the safeguards put in place by HAR §3-122-16.06² and provide Petitioner with an unfair advantage over the other offerors - three additional days to prepare its proposal. Such a result could not have been intended by the Procurement Policy Board in promulgating HAR

¹ Petitioner does not dispute that HAR §3-122-16.06 required Respondent to issue an addendum to the RFP in order to properly grant the requested extension.

² HAR §3-122-16.06(b)(2) requires the issuance of an addendum to the solicitation prior to the submission of offers in order to "[f]urnish to other offerors information given to one offeror if the information will assist the other offerors in submitting offers or if the lack of the information would prejudice the other offerors."

§3-122-16.08. On the contrary, the purpose of the exception³ is to insure for the government the benefits of the maximum of *legitimate* competition, not to give one offeror a wholly unmerited advantage over another by an over-technical application of the rule. Accordingly, the Hearings Officer concludes that the lateness exception set forth in HAR §3-122-16.08(a) is inapplicable where, as here, the action of personnel within the procurement activity would otherwise violate the provisions of HRS Chapter 103D or its implementing rules.⁴

Alternatively, Petitioner contends that Respondent should be equitably estopped from claiming that Petitioner's proposal was late. While it is generally true that equitable estoppel may be applied to prevent manifest injustice, the supreme court has held that the application of equitable estoppel against the government is not favored and that estoppel cannot be applied to actions for which the agency or agent of the government has no authority. *Turner v. Chandler*, 87 Hawaii 330 (1998); *Filipo v. Chang*, 62 Hawaii 626 (1980). Petitioner contends, however, that Respondent's failure to amend the solicitation to properly provide for the extension is an act "improper for some reason in their execution" rather than an *ultra vires* act. The former refers to the irregular use of *granted power* (which may be estopped) while the latter refers to the lack of power (which is *ultra vires* and cannot be estopped). Here, the undisputed facts make clear that Ramsey did not have the authority

³ HAR §3-120-1 provides that, "the purpose of these rules is to promote economy, efficiency, and effectiveness in the procurement of goods and services, and the construction of public works for the State and counties, by:

• • • • •

(4) Ensuring the fair and equitable treatment of all persons who deal with the procurement of the State and counties;

• • • • •

(6) Fostering effective broad-based competition within the free enterprise system;

(7) Providing safeguards for the maintenance of a procurement system of quality and integrity; and

(8) Increasing public confidence in the procedures followed in the public procurement.

⁴ It seems more reasonable that an individual should occasionally suffer from the mistakes of public agents or officials than to adopt a rule which might allow a party to circumvent the safeguards provided in HRS Chapter 103D and its implementing rules to protect the integrity of the procurement system.

to grant the extension, by amendment or otherwise. Thus, Ramsey's action can only be construed as ultra vires and as such, cannot be the basis for equitable estoppel.

Finally, Petitioner alleges that Ramsey had the apparent authority to grant Petitioner's extension request. Apparent authority arises when the principal does something or permits the agent to do something which reasonably leads another to believe that the agent had the authority he purported to have. The critical focus is not on the principal and agent's intention to enter into an agency relationship, but on whether a third party relies on the *principal's conduct* based on a reasonable belief in the existence of such a relationship. *State Farm Fire and Cas. Co. v. Pacific Rent-All, Inc.*, 90 Hawai'i 315, 978 P.2d 753 (1999); *Cho Mark Oriental Food v. K & K Int'l*, 73 Hawaii 509 (1992). The only evidence offered by Petitioner to establish that Respondent had clothed Ramsey with the authority to grant the extension is the allegation that Petitioner "was specifically directed to contact Ramsey." Even if true, however, that assertion alone cannot constitute a sufficient showing that *Respondent's conduct reasonably* led Petitioner to believe that Ramsey had the authority to grant the extension.⁵ Therefore, the Hearings Officer can only conclude that if this matter went to hearing, there would be no competent evidence to support a decision for Petitioner. *Hall v. State*, 756 P.2d 1048 (1988)(*moving party is entitled to judgment as a matter of law because the nonmoving party failed to make a sufficient showing on an essential element of its case with respect to which it has the burden of proof*).

IV. ORDER

Based on the foregoing findings and conclusions, Respondent's motion to dismiss Petitioner's request for hearing is granted and this matter is hereby dismissed.

Dated at Honolulu, Hawaii: _____

OCT - 6 2005



CRAIG H. UYEHARA
Administrative Hearings Officer
Department of Commerce
and Consumer Affairs

⁵ This conclusion is buttressed by the principle that when dealing with agents of the state, one is presumed to have knowledge of the agent's power and authority, and when one deals with them in a manner not in compliance with the law one does so at one's peril. *Barendregt v. Walla Walla School District, No. 140*, 611 P.2d 1385 (1980).

October 15, 2004

Services to Develop a Cultural Resource Management Plan for
Ahihi-Kinau Natural Area Reserve and Keoneoio
Department of Land and Natural Resources
RFP-AK04-001

Department of Land and Natural Resources

State of Hawaii
Honolulu, Hawaii 96813

Dear Sir:

The undersigned has carefully read and understands the terms and conditions specified in the Specifications and Special Provisions attached hereto, and in the General Terms and Conditions, dated September 1, 1995, by reference made a part hereof and available upon request; and hereby submits the following offer to perform the work specified herein, all in accordance with the true intent and meaning thereof. The undersigned further understands and agrees that by submitting this offer, 1) he/she is declaring his/her offer is not in violation of Chapter 84, Hawaii Revised Statutes, concerning prohibited State contracts, and 2) he/she is certifying that the price(s) submitted was (were) independently arrived at without collusion.

The undersigned represents: (Check ☒ one only)

- ☒ A **Hawaii business** incorporated or organized under the laws of the State of Hawaii;
OR
☐ A **Compliant Non-Hawaii business** not incorporated or organized under the laws of the State of Hawaii, but registered at the State of Hawaii Department of Commerce and Consumer Affairs Business Registration Division to do business in the State of Hawaii.

State of incorporation: CALIFORNIA

Offeror is:

- ☒ Sole Proprietor ☐ Partnership ☐ Corporation ☐ Joint Venture
☐ Other _____

Federal I.D. No.: 91-1132481

Hawaii General Excise Tax License I.D. No.: 10552392

Payment address (other than street address below): 1 SAUNDERS AVE.

City, State, Zip Code: SAN ANSELMO CA 94960

Business address (street address): 146 HEKILI STREET

City, State, Zip Code: KAHUA HI 96734

Respectfully submitted:

Date: 10.15.04

Telephone No.: (808) 262-1387

Fax No.: (808) 262-1384

E-mail Address:

jpeterson@garciaandassociates.com

(x)

Authorized (Original) Signature

JOHN A. PETERSON

PACIFIC REGIONAL MANAGER

Name and Title (Please Type or Print)

* GARCIA AND ASSOCIATES

Exact Legal Name of Company (Offeror)

*If Offeror is a "dba" or a "division" of a corporation, furnish the exact legal name of the corporation under which the awarded contract will be executed:

October 11, 2004

Division of Forestry and Wildlife
Maui Branch Office
54 South High Street
Wailuku, HI 96793

Dear Colleagues:

We are pleased to present the following proposal for the project *Services to Develop a Cultural Resource Management Plan for Ahihi-Kinaiu Natural Area Reserve and Keoneoio*, RFP-AD04-01. We trust that you will find everything as requested in the solicitation. We have, we believe, made a compelling proposal to accomplish the archaeological and cultural surveys and to integrate them into a management plan that will contribute to the protection and preservation of these significant resources.

Combining the analytical power of Geographic Information Systems with remote sensing and real-time GPS/data dictionary site and feature recording provides for documentation as well as planning for long range management of the Reserve.

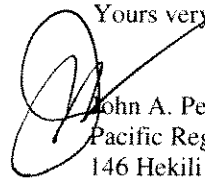
Our team is well-qualified in the region as well as in the area of natural and cultural resource management and planning, and key personnel have collaborated on previous projects in the Hawaiian Islands.

As requested, the sections of this document have been tabbed for ease of access. The major sections are organized as follows:

- I. Experience and Capabilities
- II. Business History
- III. Develop a CRMP for Ahihi-Kinaiu NAR and Keoneoio
 - a. Description of proposal to inventory sites
 - b. Description of proposal to gather cultural information
 - c. Description of proposal to prioritize protection measures
 - d. Timeline
- IV. Detailed Project Budget

Thank you for your consideration of this proposal.

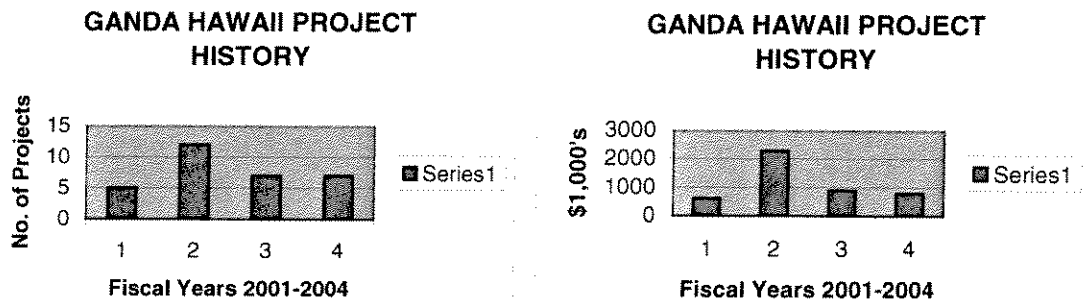
Yours very truly,


John A. Peterson, Ph.D.
Pacific Regional Manager
146 Hekili St., Suite 101,
Kailua, HI 96734, (808) 262-1387

I. EXPERIENCE AND CAPABILITIES

BUSINESS EXPERIENCE

Garcia & Associates (GANDA) has been conducting business in Hawai'i since its inception in 1996 for private, local, state, and federal entities. The professional experience of the firm is detailed in the Business History in Section II of this proposal. The following charts illustrated the number of projects and the dollar volume of projects conducted by the Hawai'i office of Garcia & Associates since 2000.



These charts illustrate a steady volume of projects (average 8 per year) and income (average \$1.2 million per year) over the past four years. Anticipated level of projects and funding for Fiscal Year 2005 is consistent with four year average.

Federal Standard Form 255 and the letter of consideration from Peter T. Young, Chairperson, Department of Land and Natural Resources, are provided in Appendix B.

KEY PERSONNEL

Key personnel who will work on this project are as follows:

Principal Investigators	Boyd Dixon, Ph.D. John A. Peterson, Ph.D.
Project Director	Mike Desilets, M.A.
GIS/Remote Sensing	Mark Willis, B.A.
Project Archaeologist	Jennifer Robins, B.A.
Field Supervisor	Amy Buffum, B.A.
Ethnographer	Maria Ka'Imipono Orr, M.A.

These principal personnel have extensive experience in project management, high quality archaeological field studies, and have excellent records of accomplishment in analytical and synthetic contributions to the discipline. They have worked together in combinations of two or more on project teams, in some cases over several years of association. Their experience and qualifications are provided in Appendix A along with their short curriculum vitae.

SUMMARY OF PENDING JUDGMENTS, LAWSUITS, ACTIONS

NONE.

BIOGRAPHICAL SKETCHES: PROFESSIONAL STAFF

GANDA Pacific Personnel

Boyd Dixon, Ph.D.—*Principal Investigator/Archaeologist*

Dr. Dixon has conducted numerous CRM and research investigations in Hawai'i, the Pacific, and North and South America. He has been a practicing archaeologist for 30 years, and has worked in Hawai'i since 1991. He served as Senior Archaeologist and Principal Investigator on the Kahikinui Mauka Archaeology Project on behalf of the Historic Preservation Division, Department of Land and Natural Resources for the Department of Hawaiian Home Lands in 2000.

John A. Peterson, Ph.D.—*Pacific Regional Manager/Principal Investigator*

Dr. Peterson has extensive experience in preservation planning at the local and state levels. He has participated in master planning and interpretive planning and programming in Ohio, Texas, the Philippines, and Hawai'i, as well as having conducted numerous archaeological investigations as Principal Investigator and Senior Archaeologist. Peterson recently completed a marine ethnography with Maria Ka'Imipono Orr for the Kaloko-Honokohau National Park.

Mike Desilets, M.A.—*Project Director/Archaeologist*

Mr. Desilets has over ten years project management experience, the last eight of which have been in Hawaiian and Pacific archaeology. He has been supervisory archaeologist on inventory, reconnaissance, and monitoring projects in O'ahu and Palau, and has been principal author or co-author on numerous CRM projects. He is experienced in Section 106 documentation and preservation planning.

Jennifer Robins, B.A.—*Archaeologist*

Project Director Jennifer Robins brings over 17 years Hawaiian field archaeological and project management experience to the project. She has conducted numerous field studies producing excellent high quality data and documentation. Field illustration, descriptive documentation, GPS location, and reporting are integrated rigorously in projects under her supervision.

Mark D. Willis, B.A.—*Remote Sensing/GIS Specialist*

Mark D. Willis is expert in GIS and remote sensing, as well as archaeological prospection and computer analyses of archaeological data. He will contribute to the project by integrating all field and remote sensing data into a GIS that supports long-term studies as well as the current inventory project.

Amy Buffum, B.A.—As a Field Supervisor and G.I.S. specialist, Ms. Buffum has over 10 years experience in Hawaiian archaeology. She has conducted numerous field projects and several in the vicinity of Ahihi-Kinau in Maui.

Maria Ka'Imipono Orr—*Ethnographer*

Maria Orr is an ethnographer and cultural anthropologist who has conducted numerous cultural impact assessments, ethnographic consultations, and interpretive studies in Maui, Hawai'i, O'ahu, and Kauai Islands.

GANDA Senior Support Personnel in California

John C. Garcia, M.S.—*Principal/Systems Ecologist*

Mr. Garcia is the founder of GANDA and is responsible for management and quality control of GANDA's projects. He has over 24 years of experience in conducting and managing environmental studies in the Pacific Rim and throughout the western U.S. Mr. Garcia has managed over a hundred projects for a wide range of clients. Mr. Garcia has extensive experience in coastal ecosystems. In the Pacific region he has served as the Principal-in-Charge for: the fisheries management plan for Tarawa Lagoon (Gilbert Island); the Māmala Bay waste discharge ecological impacts study and associated data base on O'ahu; and Samoan Wetlands Management Plans.

Carole Taylor Garcia, B.A.—*Environmental Planner*

Ms. Garcia has 12 years of experience in domestic and international resource management issues. Ms. Garcia manages many of GANDA's environmental impact assessment and planning projects. She also is responsible for marketing and business development at GANDA and oversees GANDA's day-to-day company-wide administrative operations. Ms. Garcia is also overseeing the production of a guide to American Samoa's wetlands in Manu'a. Prior to joining GANDA, Ms. Garcia worked on environmental projects in Australia, Pakistan, Nepal, Polynesia (American Samoa, Western Samoa), Micronesia (the Commonwealth of the Northern Marianas, Republic of the Marshall Islands, Republic of Palau), the Philippines, Japan, and Curaçao (the Netherlands Antilles).

II. BUSINESS HISTORY

INTRODUCTION

Garcia and Associates (GANDA) is a natural and cultural resources consulting firm specializing in cultural resource management, natural resource policy and planning applications, and aquatic and terrestrial ecology. We are a group of professionals who maintain expert credibility by providing our services in a reasoned, balanced approach based on sound science and analysis. Our staff has completed projects that range from multi-year, million-dollar planning/impact studies for large facilities to focused studies with short deadlines and limited budgets.

GANDA's core client groups are federal, state and local government, energy and water utilities, and private commercial and residential developments. Our staff has experience in all phases of the project development process for private and governmental clients. This experience includes: feasibility studies; planning and screening studies; resource management studies; site selection; impact assessment; mitigation design, negotiation and implementation; expert witness testimony; and monitoring. We employ state-of-the-art knowledge in applied archaeology, biology, and ecology to project scales ranging from local sites and individual species to regions and ecosystems.

GANDA's team has a working knowledge of state and federal regulatory standards and requirements for licensing facilities and their operations. We facilitate compliance with the National Environmental Policy Act (NEPA), Section 106 of the National Historic Preservation Act, Section 404(b) of the Clean Water Act, and Sections 7 and 10 of the Endangered Species Act. Our staff has contributed to the development of cultural and environmental preservation and guidelines throughout the U.S. and Asia-Pacific region.

GANDA's capabilities include research design development, field data collection, data management and analysis, report writing, and communication. Within the research design, our clients find a strong commitment to sound project management and quality assurance. Field research is conducted according to the research design and applicable federal and state regulations with maximum safety considerations. Data management and analysis is based on sound scientific models and is accomplished through the use of the most advance technology available. All reports are produced according to applicable state and federal guidelines and are subject to peer review and internal copy edit. GANDA facilitates communication between our clients and state and federal agency officials and other interested parties. We have represented clients in regulatory and legal forums, and in public meetings.

GANDA has conducted many field studies in Hawai'i, Micronesia, the Asia-Pacific Region, and the western United States. We maintain the necessary equipment and supplies to mobilize field investigations on short notice.

GANDA is certified in the Federal Small Business Administration 8(a) Program, as as a Disadvantaged Business Enterprise by the State of Hawai'i.

GANDA CORPORATE DATA

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fax (775) 329-7527
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Size of Business: GANDA has been certified by the Small Business Administration as a small disadvantaged business, a minority business enterprise (MBE), a disadvantaged business enterprise (DBE), and as a certified 8(a) business. We have been certified under SIC codes 8999, 8731, 8732, 8742, and 8748 and NAICS codes 541611, 541618, 54169, 54171, 54172. Our applicable industry group is Consulting (three-year average annual receipts of \$3 million or under). We are currently over the three year average in selected NAICS code classifications.

Number of Employees: 66

Management/Officers (4)

Administrative (6)

Archaeologists/Ethnographers (9)

Technicians-Archaeology & Biology (9)

Wildlife Biologists (18)

Wetlands Ecologists (1)

Environmental Planners (3)

Cartographer/GIS Specialist (2)

Production/Graphics (1)

Technical Writer/Editors (1)

Botanists (5)

Fisheries/Aquatic Biologists (7)



SUMMARY OF CULTURAL AND BIOLOGICAL SERVICES CAPABILITIES

Licenses/Permits/Regulations/Certification

Small Business Administration 8a Program
Hawai'i Department of Transportation DBE certification
National Register of Historic Place, Sections 106 & 110 Compliance Training
Native American Graves Protection and Repatriation Act Compliance Training
National Environmental Policy Act Compliance Training
Traditional Cultural Properties Training
Environmental Assessments/Environmental Impact Statements
Endangered Species Act, Sections 7 and 10
Clean Water Act, Section 404
Hawai'i Revised Statutes, Chapter 6E, as amended
Hawai'i Administrative Rules Title 13, Chapters 275–284

Archaeological Capabilities

Section 106 Compliance	Historic Preservation Plans
Collections and Archival Research	Cultural Resource Management Plans
Resource Inventory	Faunal Analysis
Test and Data Recovery Excavations	Soils Analysis
Mitigation Planning and Monitoring	Source Analysis
Construction Monitoring	Materials Analysis
Cartography and Illustration	Traditional Cultural Properties
Artifact Conservation	Geographic Information Systems



History/Ethnography

Archival Research	NRHP Evaluations and Nominations
Oral History	Sociocultural Impact Evaluations
Architectural History and Evaluation	Cultural Ecology
Land Use History	Ethnobotany
Liability Evaluations	Mitigation Planning
Field Ethnography and Consultation	Individual Property Records Search

Environmental Services

Environmental Assessments/Impact Statements	Facility Siting
Resource Management Plans	Management/Planning
Cumulative Impacts	Mitigation/Compensation Planning
Construction and Mitigation Monitoring	Sociocultural Impacts
Environmental Costing	Land Use Impacts
Natural Resource Economics	Ecological Risk Assessment
Expert Testimony	Ecological and Population Modeling
Stream Corridor Inventory	Habitat Modeling (HEP, IFIM)

Wildlife/Fisheries/Aquatic Invertebrates

Habitat Assessment and Population Surveys	Threatened/Endangered Species Investigations
Radio/Acoustic Tagging	Fisheries Investigations
Species Inventories/Population Assessments	Ornithological Investigations

Botany/Wetland Resources

Rare Plant Surveys/Status Reports	Landscape Ecology/Habitat Structure
Vegetation Surveys/Floristic Analysis	Population Dynamics
Wetland Functional Evaluation	Wetland Creation/Restoration
Ecological Modeling	Revegetation/Reclamation
Jurisdictional Boundary Delineation	Habitat Mapping
Aerial Photo Interpretation	Riparian Ecology, Restoration, Monitoring

Geospatial Technologies

ArcView 9.0 GIS	Statistical & Spatial Analyses
Global Positioning System	Proton Magnetometry
Satellite & Aerial Remote Sensing	Ground Penetrating Radar
Multivariate Predictive Modeling	Laser Total Station Surveying

CULTURAL RESOURCES SERVICES

GANDA offers professional expertise in prehistoric and historical archaeology, anthropology, architectural history, ethnology, history, and preservation planning. We specialize in cultural resource management planning and legal compliance. GANDA Hawai'i is fully equipped to conduct a range of cultural resource management projects.

GANDA's Hawai'i personnel have extensive field experience in all phases of archaeological research. Our staff has completed projects that range from multi-year, million-dollar contracts to short-term, focused studies. Our staff has undertaken projects in a variety of locations across the Pacific including: all of the major Hawaiian Islands; the Commonwealth of the Northern Mariana Islands (CNMI); Guam; Wake Island; American Samoa; the Marshall Islands; and the Republic of Palau.

GANDA specializes in designing plans and providing recommendations to be used in compliance with the following laws:

- National Historic Preservation Act (NHPA), Sections 106 and 110
- Archaeological Resources Protection Act (ARPA)
- Native American Graves Protection and Repatriation Act (NAGPRA)
- National Environmental Policy Act (NEPA)
- Hawai'i Revised Statutes, Chapter 6E, as amended

Regulatory Compliance

The GANDA Hawai'i team offers the following services for legal compliance:

- archival research
- ethnographic data collection
- archaeological reconnaissance and inventory surveys
- National Register evaluations and nominations
- mitigation and resource management plans
- mitigation of adverse effect
- historic preservation/cultural resource/integrated resource management plans

- construction monitoring
- burial response team
- burial treatment plans
- Native Hawaiian consultation
- federal and state agency consultation/coordination
- report preparation

Other Cultural Resource Management Services

- the development of integrated, computer-aided management systems and interactive media using GIS/database/ARC/INFO;
- production of interpretive brochures and booklets for both cultural and natural resources;
- the promotion of archaeology and cultural resource management issues in Hawai'i

NATURAL RESOURCES SERVICES

GANDA's natural resources division facilitates compliance with the NEPA, the Clean Water Act, Section 404, and the Endangered Species Act, Sections 7 and 10. The team is experienced in preparing and producing documents such as Environmental Assessments and Environmental Impact Statements, Integrated Resource Management Plans and Natural Resource Management Plans.

Estuarine and Marine Resources

GANDA's scientists have extensive experience in the study of estuarine and marine ecosystems. Our scientists have conducted studies of estuarine and marine systems throughout much of the world, including the central and south Pacific Ocean. Studies have included analyses of circulation, nutrient inputs and cycling, dynamics of plankton, hard and soft-bottom benthos and fish populations, coral reefs, artificial reefs, kelp beds, salt marshes, and trophic ecology. We have conducted long-term studies in remote locations, and have applied satellite remote sensing to ecological projects.

Aquatic Resources

GANDA personnel have the expertise needed to assess and mitigate impacts to fish, invertebrates, plants, and algae in freshwater ecosystems. GANDA has developed computer models to assess impacts of projects on species populations as well as on ecosystems. We have contributed to many planning efforts to minimize and mitigate impacts to aquatic organisms and their habitats due to construction.

Botanical and Wetland Resources

GANDA's botanists are regulatory and technical specialists who have conducted numerous general vegetation inventories, rare plant surveys, wetlands delineations, riparian corridor assessments and monitoring. Rare plant field studies have included formal status surveys and statistical analyses to determine the ecological requirements of rare plant species. GANDA's staff recently developed comprehensive wetland management plans for all of the islands of American Samoa.

Wildlife Resources

GANDA's wildlife biologists conduct siting, baseline and impact assessment studies, inventory and monitoring studies, threatened and endangered species surveys, and studies in support of terrestrial ecological risk assessment. Our wildlife biologists employ a broad range of impact assessment tools to evaluate potential effects of projects on species populations and ecosystems. We evaluate effects of projects using impact matrixes, narratives, and qualitative and quantitative habitat and population models.

Ecosystems Management

GANDA's cultural and natural resources staff work cooperatively to design Integrated Resource Management Plans for large-scale development projects. An inventory of resources and land uses is

compiled in a database to evaluate the opportunities, constraints, and present impacts of each biophysical factor important to management planning. GIS technology is used to produce computer-derived resource and land use maps. IRMPs facilitate long-term management of cultural and natural resources.

CLIENT LIST AND SELECTED LIST OF PROJECTS

SELECTED CLIENT LIST: PACIFIC REGION

- United States Army Corps of Engineers
- Natural Energy Laboratory of Hawaii
- Brown and Caldwell Consultants
- Ho'ouikaika Hawaiian Club
- Engineers Surveyors Hawaii
- Western Pacific Regional Fishery Management Council
- Māmalā Bay Commission

Selected Cultural Resource Projects in the Pacific

Data Recovery Consulting Services for the Natural Energy Laboratory of Hawaii Authority, Keāhole Point, Island of Hawai'i (Natural Energy Laboratory of Hawaii Authority, Kailua-Kona, HI)

GANDA conducted archaeological data recovery investigations at three sites in the NELHA area of Keāhole Point. Project tasks included: background research, preparation of data recovery plan, field investigations, laboratory analyses, significance evaluations and report preparation.

Archaeological Monitoring for Fort Shafter Sewage Pump Station, Fort Shafter Military Reservation, O'ahu, Hawai'i (U.S. Army Corps of Engineers, Honolulu District)

GANDA provided archaeological monitoring services for the project. Services included: background research, Archaeological Monitoring Plan, construction monitoring, laboratory analyses, and report preparation.

Archaeological Monitoring for OSCAR Project, Fort Shafter Military Reservation, O'ahu, Hawai'i (U.S. Army Corps of Engineers, Honolulu District)

GANDA is providing archaeological monitoring services for the project. Services include: background research, Archaeological Monitoring Plan, construction monitoring, laboratory analyses, and report preparation.

Archaeological Monitoring for Bellows Air Force Station Cabin Replacement Project, O'ahu, Hawai'i (U.S. Army Corps of Engineers, Honolulu District)

GANDA provided archaeological monitoring services for the project. Services included: background research, Archaeological Monitoring Plan, construction monitoring, laboratory analyses, and report preparation.

Archival Research and Documentation for Building 368 Bunker, Schofield Barracks Military Reservation O'ahu, Hawai'i (U.S. Army Corps of Engineers, Honolulu District)

GANDA prepared a work plan; conducted background research at federal repositories in California and Hawaii; interviewed military and civilian personnel with knowledge of the facility; attempted on-site assessment of the structure in an effort to gather documentation to HABS/HAER standards; and prepared a report documenting the results of the research and recommendations.

Archaeological Monitoring for Hickam Air Force Base CITS Project, O'ahu, Hawai'i (U.S. Army Corps of Engineers, Honolulu District)

GANDA is providing archaeological monitoring services for the project. Services included: background research, Archaeological Monitoring Plan, construction monitoring, laboratory analyses, and report preparation.

Archaeological Monitoring for Hickam Air Force Base Fire Rescue Training Facility Project, O'ahu, Hawai'i (U.S. Army Corps of Engineers, Honolulu District)

GANDA is providing archaeological monitoring services for the project. Services included: background research, Archaeological Monitoring Plan, construction monitoring, laboratory analyses, and report preparation.

Archaeological Monitoring for Bellows Air Force Station 8" Waterline Project, O'ahu, Hawai'i (U.S. Army Corps of Engineers, Honolulu District)

GANDA provided archaeological monitoring services for the project. Services included: background research, Archaeological Monitoring Plan, construction monitoring, excavation of sample units, site analyses, laboratory analyses, and report preparation.

Archaeological Monitoring for MCBH-KB OSCAR Project, O'ahu, Hawai'i (U.S. Army Corps of Engineers, Honolulu District)

GANDA is providing archaeological monitoring services for the project. Services included: background research, Burial Treatment Plan, construction monitoring, laboratory analyses, and report preparation.

Archaeological Monitoring for Sewerline Replacement Project, Signer Boulevard, Hickam Air Force Base, O'ahu, Hawai'i (U.S. Army Corps of Engineers, Honolulu Engineer District)

GANDA is providing archaeological monitoring services for the project. Services included: background research, Archaeological Monitoring Plan, construction monitoring, laboratory analyses, and report preparation.

Archaeological Monitoring for Grease Pit and Sewerline Connection Project, Hickam Air Force Base, O'ahu, Hawai'i (U.S. Army Corps of Engineers, Honolulu Engineer District)

GANDA is providing archaeological monitoring services for the project. Services included: background research, Archaeological Monitoring Plan, construction monitoring, laboratory analyses, and report preparation.

Archaeological Monitoring for Installation of Security Fence, Ft. DeRussy, O'ahu, Hawai'i (U.S. Army Corps of Engineers, Honolulu Engineer District)

GANDA provided archaeological monitoring services for the project. Services included: background research, Archaeological Monitoring Plan, construction monitoring, laboratory analyses, and report preparation.

Archaeological Testing for Storm Drain Upgrade/Replacement Project, Hickam Air Force Base, O'ahu, Hawai'i (U.S. Army Corps of Engineers, Honolulu Engineer District)

GANDA is providing archaeological testing services for the project. Services included: background research, research design, archaeological testing, laboratory analyses, and report preparation.

Archaeological Monitoring for Helipad Fence Relocation Project, Hickam Air Force Base, O'ahu, Hawai'i (U.S. Army Corps of Engineers, Honolulu Engineer District)

GANDA is providing archaeological monitoring services for the project. Services included: background research, Archaeological Monitoring Plan, construction monitoring, laboratory analyses, and report preparation.

Archaeological Monitoring for Hydrant/Waterline Replacement Project, Hickam Air Force Base, O'ahu, Hawai'i (U.S. Army Corps of Engineers, Honolulu Engineer District)

GANDA is providing archaeological monitoring services for the project. Services included: background research, Archaeological Monitoring Plan, construction monitoring, laboratory analyses, and report preparation.



Archaeological Monitoring for Hickam Alert Aircraft Terminal Security System Installation Project, Hickam Air Force Base, Oahu, Hawaii (U.S. Army Corps of Engineers, Honolulu Engineer District)

GANDA is providing archaeological monitoring services for the project. Services included: background research, Archaeological Monitoring Plan, construction monitoring, laboratory analyses, and report preparation.

Indefinite Quantity Contract for Historical Preservation Investigations and Studies, Pacific Region (U.S. Army Corps of Engineers, Honolulu District)

Services under this three-year contract consisted of cultural resource management services for U.S. Army bases, DOD lands and other federally administered lands occurring within the Pacific region. Thirty-one task delivery orders were issued during the life of this contract. A number of delivery orders required field research in areas contaminated by hazardous materials (HAZMATs) and/or containing unexploded ordnance. Each non-brochure task delivery order required submittal of a detailed technical report subject to review and approval by the U.S. Army officials and state historic preservation authorities.

Delivery Orders for work in Hawai'i:

- Archaeological Reconnaissance Surveys at the Pohakuloa Training Area, Island of Hawai'i and the Hawaii Army National Guard Kanaio Training Area (KNTA), Island of Maui.
- Archaeological Survey and Excavation at Schofield Barracks, Wheeler and Hickam AFB, Island of O'ahu.
- Archaeological Data Recovery, Monitoring, and Palaeoenvironmental Investigations at Ft. DeRussy and Ft. Shafter, Island of O'ahu.
- Preparation of a Cultural Resources Management Plan for Bellows AFS, Island of O'ahu.
- Preparation of Historic Preservation Plans for the Hawaii Army National Guard Kanaio Training Area, Island of Maui and the Pohakuloa Training Area, Island of Hawai'i.
- Preparation of Integrated Resource Management Plans for Nu'upia Fishpond Wildlife Management Area, Island of O'ahu and for KNTA, Island of Maui.
- Preparation of Cultural Resources Brochures for the Marine Corps Base Hawaii, Kaneohe Bay, Island of O'ahu; Pohakuloa Training Area, Island of Hawai'i; and for all U.S. Army Military Training Areas on the island of O'ahu.
- Preparation of a Historic Preservation Plan and Interpretive Walking Trail for Wake Island Air Force Base.
- Ethnographic Study Among American and Japanese Survivors of the Battle for Wake Island.

Delivery Orders for work in the Republic of the Marshall Islands:

- Archaeological Subsurface Testing Survey, Roi-Namur, Kwajalein Atoll.

Delivery Orders for work in the Commonwealth of the Northern Mariana Islands:

- Archaeological Monitoring and Sampling During Remedial Study of Subsurface Hydrocarbon Contamination, Garapan, Island of Saipan.
- Archaeological Reconnaissance Survey for the Proposed Voice of America Relay Station, Island of Tinian.
- Archaeological Inventory Survey and Monitoring Services for the Proposed Voice of America Relay Station, Island of Tinian.
- Archaeological Survey and Testing at Carolinas Heights, Island of Tinian.

Palaeoenvironmental/Archaeological Investigations and Monitoring at 'Ōhi'apilo Pond, Island of Moloka'i, Hawai'i (Brown and Caldwell Consultants)

GANDA conducted sediment coring, archaeological excavation, and monitoring at 'Ōhi'apilo Wetland, Moloka'i island. The project, conducted in three phases, was designed to identify and evaluate potentially significant archaeological resources present and to mitigate adverse effect resulting from wetland enhancement activities.

Archaeological Investigations in Six Petition Areas Proposed for State Land Use District Boundary Amendment by Makena Resort Corp, Island of Maui (Aki Sinoto Consulting)

An archaeological inventory survey was conducted by GANDA in compliance with a State Land Use District Boundary Amendment proposed by the Makena Resort Corp. Work tasks for this project included a complete surface survey, recording of all sites, test excavations at selected sites, and preparation of a technical report.

Archaeological Inventory for Planned Pū'āinakō Street Extension, Island of Hawai'i

(Ho'oikaika Hawaiian Club)

GANDA performed a supplemental archaeological study on a 37.5-acre parcel set for development. The investigation was funded through a grant from the Office of Hawaiian Affairs (OHA). The tasks for the study consisted of archaeological excavations and mapping of previously identified surface stone structures. A technical report of findings was prepared and submitted to Ho'oikaika.

Archaeological Inventory Survey of Hā'ikū, Island of Maui (Aki Sinoto Consulting)

GANDA conducted an archaeological inventory study for a proposed residential complex on the north coast of East Maui. Work tasks included: a systematic pedestrian survey; significance evaluations of archaeological resources; archaeological subsurface testing; site significance assessments; and the preparation of a technical report.

Archaeological Survey of Wailea Development Parcels, Wailea, Island of Maui (Aki Sinoto Consulting)

GANDA conducted an archaeological reconnaissance survey for two parcels (MF-5 and MF-6) in the Wailea area on the island of Maui. The work tasks for the project included: a complete surface survey of each parcel, the clearing and recording of each site and feature identified, and the preparation of a technical report.

Kahului Harbor Archaeological Subsurface Testing, Island of Maui (Aki Sinoto Consulting)

GANDA conducted archaeological subsurface investigations for a proposed facility adjacent to Kahului Harbor, Maui. Work tasks for this project consisted of the excavation of 11 backhoe trenches, stratigraphic recording of results, and the collection of any artifacts uncovered during the excavations. A technical report outlining results and site significance assessments was submitted to the client and to the State of Hawai'i Historic Preservation Division for review.

Data Recovery and Archaeological Monitoring for Waterline on Ngiwal, Republic of Palau (J. Pantaleo Consulting)

Archaeological monitoring was provided during the excavation of a waterline trench through the village of Ngiwal on the west coast of the island of Babeldaob in the Republic of Palau. The recovery and protection of previously identified human skeletal remains were also conducted.

Selected Natural Resources Projects in the Pacific and Asia

Indefinite Quantity Contract for Historical Preservation Investigations and Studies, Pacific Region (U.S. Army Corps of Engineers, Honolulu District)

Delivery Orders for work in Hawai'i:

- Integrated Resource Management Plan/Kanaio, Maui, Hawai'i

GANDA prepared an Integrated Resource Management Plan for the U.S. Department of Defense Legacy Resource Management Program at the Hawaii National Guard Kanaio Training Area (KNTA). The aim of this plan is to integrate the military training mission with the protection and preservation of significant cultural resources and important natural resources.

- Integrated Resource Management Plan/Nu'upia, O'ahu, Hawai'i

GANDA prepared an Integrated Resource Management Plan for the Legacy Resource Management Program for the Nu'upia Ponds Wildlife Management Area, Marine Corps Base Hawaii.

Māmala Bay Database Study (Māmala Bay Commission)

GANDA was responsible for the development and administration of a database for use in a study of the impacts of sewage outfalls in Māmala Bay, Hawai'i. It is a user interactive database containing all biological, sediment, oceanographic, and chemical data collected from Māmala Bay, Hawai'i; and serves as a central repository and retrieval system that provides investigators with easy access to information related to Māmala Bay and its environs, and documents the research conducted during the study.

Māmala Bay Modeling and Risk Assessment (PRC)

GANDA statistically evaluated all existing data to assess the impacts of the Māmala Bay sewage outfall on the Māmala Bay ecosystem. Sediment, nutrient, and toxic models were developed, and impacts and ecological risks were assessed.

Hawai'i Pelagic Longline Seabird Mortality Mitigation Project (Western Pacific Regional Fisheries Management Council)

GANDA is responsible for testing the effectiveness of various deterrents and techniques aimed at reducing incidental bycatch of federally protected seabirds taken by the Hawai'i pelagic longline fisheries targeting tuna and swordfish. Recommendations outlining the most effective and least intrusive methods for eliminating bycatch of seabirds and how to implement these measures in the North Central Pacific longline fisheries were also developed.

Preparation of a Comprehensive Wetlands Management Plan for Tutuila and Manu'a (Government of American Samoa)

GANDA was responsible for coordinating the development of a comprehensive wetlands management plan for the islands of Tutuila and Manu'a. The projects involved the development of an overall policy framework, including program strengthening; conducting legal analysis; drafting proposed legislation; coordinating public and village council participation; and preparing an educational guide.

Resource Management Baseline Study for Tafuna Plains (Government of American Samoa)

GANDA developed a computer model to analyze the current and future population impacts on land use and analyzing the results; legal and institutional review; recommendations for improving land use controls (improvements to the zoning law, land claims registration, etc.).

Coastal Resources Management: Preparation of Program Legislation (Government of American Samoa)

GANDA analyzed existing coastal management program and prepared recommendations (including draft legislation) for strengthening the program.

Environmental Impact Assessment and Land Use, Park and Transportation Planning (Government of American Samoa) GANDA staff was responsible for assessing the transportation, socio-cultural, historic/archaeological, and biological impacts from a proposed bypass road across an Aurban@ park.

Khimti Hydroelectric Project (Morrison Knudsen, Asian Development Bank)

GANDA is providing expert review of the environmental work and documentation completed on the Khimti Hydroelectric Project in Nepal. The review includes assessment of environmental impact documents, mitigation management plans, and land acquisition and compensation plans. Recommendations were given to meet Asian Development Bank standards. GANDA is currently evaluating the implementation of the mitigation measures.

Kali Gandaki Hydroelectric Project (Morrison Knudsen, Nepal Electric Authority)

GANDA prepared the Environmental Assessment, Mitigation, and Monitoring Plan, and the environmental clauses to the tender documents for the Kali Gandaki Hydroelectric Project in Nepal. We participated in the design and review of the Acquisition and Compensation Plan for the project. The study includes development of a fish hatchery, fish trapping and trucking facilities, establishment of a nature reserve, and means for improving local employment and commerce as mitigation for anticipated

environmental impacts. GANDA is conducting the Mitigation Implementation and Monitoring aspects of the project now that it is under condition.

GANDA FACILITIES AND EQUIPMENT

Office and Laboratory Facilities

GANDA maintains five fully equipped offices located in Hawai'i, California and Montana. Each of the offices maintains standard equipment such as high speed copiers, fax machines, digital telephone systems, graphics computer and software, integrated e-mail networks, and local area networks (LANs) with more than two dozen linked computer work stations supporting current-release software programs, scanners, and laser printers. GANDA also maintains several laboratory facilities:

Geographic Information System (GIS) Laboratory

The GIS laboratory is equipped with ARC/VIEW 9.0 and graphics software, plotters, color printers, scanners and associated equipment. Our GIS technical specialist has developed habitat and vegetation data sets for use in modeling, risk assessment and site suitability analysis. These capabilities are particularly useful for Integrated Management Plans, Environmental Impact Assessment analyses, and Cultural Resource Management Plans.

Archaeological Laboratory

GANDA Hawai'i's archaeological laboratory is staffed and equipped to appropriately process and analyze both prehistoric and historic materials recovered from the field.

Field Equipment

Field teams use state-of-the-art investigative and assessment equipment. Primary support gear includes:

- A fleet of 4-wheel-drive field vehicles
- Field equipment to mobilize extensive field efforts, including:
 - SCUBA and snorkeling gear
 - Digital still and video cameras
 - Archaeological excavation, surveying, preservation, and processing gear
- Global Positioning Satellite (GPS) Pro XPR (sub-meter accuracy)
- Subsurface Coring Unit: a modified, square rod (Livingston) piston corer

GANDA DOCUMENT PRODUCTION DEPARTMENT

Report Standards and Agency Review

Each project undertaken by GANDA is documented in a technical report, management plan, and/or environmental impact document which is submitted for review to the lead federal agency official and to other cooperating agencies as appropriate. In addition, all cultural resources reports must be submitted for review to State of Hawai'i Department of Land and Natural Resources, Historic Preservation Division.

All cultural resources reports are prepared in compliance with the Secretary of Interior's Standards and Guidelines for Historic Preservation (FR48:44716-44742); and with the proposed Hawai'i Administrative Rules, Chapters 275-284; American Samoa Government *Cultural Resource Investigation—Report Guidelines*; CNMI *Guidelines for Report Preparation*; Government of Guam P.L. 21-148, Chapter 76, Article 2, Archaeological Resources, as appropriate.

Environmental impact documents are prepared in compliance with the Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act, 40 CFR1502.

CURRENT PROJECTS

Garcia & Associates is currently conducting several simultaneous projects on O'ahu and the Island of Hawai'i. We are engaged in four ongoing task orders under the terms of the U.S. Army Corps of Engineers IDIQ contract that was awarded to us in 2003 for one base year and two option years. These task orders include Phase II investigations and monitoring. We are fully equipped and staffed to conduct these simultaneous multiple contracts as well as the Ahihi-Kinau Natural Area Reserve CRMP offering.

Bellows Air Force Station Poles Away Archaeological Monitoring Project (Task Order 0008)

The field period for this monitoring project has just ended. GANDA supervised the discovery and preservation and protection of seven burials in a trenching project in the backdune terrain along Tinker Road. \$50,000.

Schofield UXO Clearance in the Battlefield Complex and Construction Monitoring (Task Order 0009)

GANDA conducted archaeological inventory survey in burn areas of Schofield Barracks and is currently monitoring clearance of UXO as well as Stryker Battalion related construction in the Qualification Training Range. GANDA is tasked with developing a cultural monitoring program to provide Hawaiian access to sites and landscapes. \$250,000.

Schofield Qualification Training Range-1 Construction Monitoring (Task Order 0010)

GANDA will monitor construction impacts on the QTR-1 area of Schofield Barracks. This project will also include cultural monitoring of activities. \$145,000.

Pohakuloa Training Area Go-No Go Phase II Site Evaluations (Task Order 0011)

GANDA will conduct Phase II testing and recording on 29 sites in the Mauna Kea Saddle. \$210,000.

Board of Water Supply, City and County of Honolulu

Nanakuli wastewater construction monitoring project. Prior budget \$236,000; \$73,000 increase to extend project to April 2005.

With five project directors and six field technicians we are capable of operating additional projects under the current schedule.

CLIENT REFERENCES

Mr. David Grant, Mr. Loren Zulick, Ms. Christi Shaw
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III. DEVELOP A CRMP FOR AHIHI-KINAU NAR AND KEONE'Ō'IO

Ahihi-Kinau Natural Area Reserve and Keone'ō'io are in leeward eastern Maui in a region known to have been settled since at least as early as the 17th century A.D (Dixon et al. 2000). Sites along the shoreline such as the Moanakala Village Complex (50-50-14-1018) in Ahihi-Kinau and sites 5050-14-1805, 1806, and 196 in Keone'ō'io (Donham) indicate the potential for further discovery of diverse cultural resource sites on State of Hawai'i lands.

Historic artifact scatters, a possible heiau, habitation enclosures, trails, C-shapes, mounds, cairns, bubble shelters, and cupboard storage areas...(Erkelens 1994)

are known to occur in the reserves. Walls, platforms, pavings, lava tubes, and petroglyphs are also possible discoveries. Trails linking coastal sites with upland sites are visible in aerial views of the area and provide an extraordinary opportunity to study vectors of transit. The Kiha road dating from as early as the 17th century was later the corridor for the Hoapili Trail from Honuaula to Kaupo road, and later yet the Maui Road or *Ke Alaloa O Maui*, that linked Hana with the rest of East Maui. These roads and their predecessors provided access along the coast, but also enabled transhumance and exchange from the coast to the uplands from the earliest settlement in Maui.

The physical evidence of these sites and trail complexes in a semi-arid, volcanic shoreline terrain provides an excellent laboratory for testing archaeological models of regional settlement in Maui, but also demonstrates the fragility of sites in an exposed accessible environment. Contemporary impacts from off-road vehicles, hikers, kayakers, and bathers have adversely effected the sites. Informal trails, littering, erosion, and vandalism are serious threats to the cultural resources of the reserves. Inventory survey and documentation must address basic site data as well as present condition and management recommendations for protection and preservation of the sites.

We propose a landscape archaeology approach as an appropriate methodology for the Ahihi-Kinau and Keone'ō'io inventory survey and cultural resource management plan. Landscape archaeology provides a broader perspective for locating and documenting sites, and also provides a suitably broad universe for modeling regional settlement and settlement history as well as framing management strategies. It requires larger land areas such as the Ahihi-Kinau Natural Area Reserve, and also comparable databases from other large land areas. These areas are found in the region both in Kula as well as Kahikinui in arid East Maui, where large-scale inventory

projects resulted in exceptional databases (Dixon 2000 et al.; Kolb et al. 1997). Both areas are upland from the present project; they are ideal regions with which to compare the shoreline and near-coast terrain of Ahihi-Kinau and Keone‘ō‘io with upland farming landscapes.

Our proposal, in brief, includes the following components:

1. Integration of cultural assessment and landscape studies. We propose to integrate the gathering of cultural information with the archaeological inventory by engaging the community in the project from the outset and conducting survey and site visits throughout the project. We propose to integrate the cultural interviews with archaeological investigations through a focus on marine cultural practice. Archival and oral historical investigations of place names, known cultural sites, and cultural knowledge of both landscapes and *seascapes* will be solicited from local *kupuna* and recorded for the project archives and reporting (see below, proposal to gather cultural information).
2. Development of upland/coastal interactive sphere settlement model for East Maui. Heuristic models for upland/coastal interaction range from static settlement models with permanent populations exchanging marine and agricultural resources, to more dynamic models of individual agency and interchangeability of roles and settlement regimes. Examination of transit vectors as well as comparison of site types and attributes in coastal and upland terrain may provide data for evaluation of these models.
3. Remote sensing investigations. We propose to utilize state-of-the-art remote sensing and Geographic Information System (GIS) analyses in order to investigate landscape attributes including vegetation, landforms, trails, sites and settlement nodes, hydrology, marine ecology and resources, as well as historical changes in these attributes. Contemporary satellite imagery is available in multi-bandwidth imagery that can be analyzed spectrally for specific landscape attributes. Historical aerial photography provides time-transgressive datasets since at least the 1930s for the region. Remote sensing imagery will be analyzed for the inshore marine environment as well as terrestrial landscapes to search for cultural features and to assess marine resources. This remote sensing imagery will be managed in ArcView 9.0 and all project data will be entered into the system for rigorous and exacting geo-referenced analysis. The GIS analysis will provide the basis for predictive modeling of other areas within similar terrain in the Hawaiian Islands. Further, remote sensing will provide horizontal plan view imagery of most archaeological sites for efficient mapping of site features and attributes.
4. Intensive pedestrian survey with basic site documentation with sub-meter accuracy GPS; data dictionary logging of site attributes and management considerations including condition, integrity. Phase 1 level intensive inventory will provide 100% inspection of the landscape for sites, and data dictionary recording of site attributes will considerably speed up onsite recording. Recommendations for detailed Phase 2 recording will be made based on field discoveries during the Phase 1 inventory survey. Shallow water survey will be conducted in nearshore marine localities to search for cultural features such as fish traps and weirs, pond walls, artifacts, and to

assess marine resources available for inshore use. Marine resource studies at Ahihi Bay and La Perouse Bay demonstrate that this is an extremely diverse and productive marine environment (Bass and Teshima 1985; DLNR DAR 1998; Hodgson and Abbott 1991). Remote sensing data, along with these studies, will provide a guide in order to develop a sampling strategy of the 800 acre offshore environment of the Reserve.

5. Preparation of NR significance evaluation, condition assessment, and Section 106 management strategies based on landscape approach (cultural landscape analysis and eligibility considerations)(see below, proposal to design management plan).

6. Management strategy prioritization based on covariation of cultural value, scientific value, condition, and location to provide ranking (see below, proposal to prioritize protection measures).

Description of proposal to inventory sites

We propose to conduct intensive pedestrian survey of the 1,238 acre Ahihi-Kinau Natural Area Refuge and the 65 acre Keone'ō'io reserve, as well as sampling in the near shore marine environment, in order to locate and inventory cultural resource sites. Because the budget is limited for this project, field survey will consist of three weeks with a crew of 3-4 daily. GANDA personnel will walk parallel transects 30 m apart from each other and will call out all discoveries of artifacts and features. These will be recorded in a data dictionary developed for the Trimble Pro XR sub-meter accuracy GPS that will record basic feature and artifact attributes along with the precise location of the find. This data will be plotted in ArcView 9.0 and georeferenced with orthophotographic quad maps of the project area and 7.5' USGS topographic quadrangle map thematic layers and DEM data. Feature and artifact distributions will be analyzed to define sites as significant clusters of artifacts and features in 10 m radius clines from site centroids. Feature density less than one feature per 10 m² area will be defined as isolated occurrences.

Data dictionary recording will include attributes for site and feature condition and site impacts of features, as well as plotting of significant impact features such as ATV trails, that might be independent of cultural resource features. Feature and site condition and impact attributes will then be calculated as scores that will be applied to each site as a means of prioritizing concerns and areas for management.

Features and feature clusters will also be documented on site with digital and film photographic recording and sketch mapping of feature orientation and morphology.

Site significance will be determined from GIS analysis of feature and site attributes as well as field judgments.

Significant sites will be revisited with cultural consultants to document cultural knowledge of the resources of the Reserve.

Site documentation will consist of field images, notes, and sketches; GPS locational data; and GIS analytical sites and landscape modeling.

A final report will be prepared presenting the cultural, historical, archaeological and natural context of the project area; development of a theoretical model of upland/coastal interactive sphere settlement for East Maui; descriptive site and landscape data; GIS analysis detailing site definition and landscape patterning; site condition and impact analysis; discussion and ranking of site protection priorities; and a proposal for a cultural resource management and public interpretation plan for the Reserves.

Description of proposal to gather cultural information

The purpose of this ethnographic survey is to gather cultural information on the resources of Ahihi Natural Area Reserve and Keone'ō'io through interviews with knowledgeable individuals in accordance with the State of Hawaii Administrative Rules, Title 13 of the Department of Land and Natural Resources, Subtitle 13, State Historic Preservation Division Rules, Chapter 284, Rules Governing Procedures for Ethnographic Surveys (§13-284-), specifically the following:

- §13-284-7 Ethnographic Inventory Survey Procedures; Generally.
- §13-284-8 Identification of Knowledgeable Individuals.
- §13-284-10 Ethnographic Interview Procedures.
- §13-284-11 Review and Consent to Use Interviews.-
- §13-284-13 Minimum Requirements for Ethnographic Inventory Survey Report.

The objectives of this ethnographic survey are twofold: 1) to record for perpetuity, the resources of Ahihi Natural Area Reserve and Keone'ō'io , past and present; and 2) to provide information that will complement and/or support the archaeological data of Ahihi Natural Area Reserve and Keone'ō'io in relation to its cultural, archaeological and marine resources.



Ethnographic Survey Methods

1. Identify and consult with individuals and organizations with expertise concerning the types of cultural resources, practices and beliefs found within the broad geographical area, e.g., district or ahupua'a; or with knowledge of the area potentially affected by the proposed action;
2. Prepare a semi-structured ethnographic research instrument that will include general biographical information, association with and knowledge of the project area, its history and use, and that will focus on the interplay of native Hawaiians and marine cultural practice;
3. Prepare a consent form to be used as written agreement with any individual interviewed concerning the project, review of transcripts, and use of information recorded during the interview;
4. Conduct and record ethnographic interviews with knowledgeable individuals. If feasible individuals shall participate in site visits; Makana (token gift--a traditional practice) to be given to consultants interviewed;
5. Transcribe recorded interviews;
6. Identify and describe the cultural resources, practices and beliefs located within the potentially affected area with an emphasis on marine practice; and
7. Prepare a report that will include an analysis of the ethnographic data.
8. Conduct site visits during and after the archaeological survey to elicit commentary on archaeological sites and landscapes.

Level of Effort. The level of effort for the ethnographic survey is 10 interviews; and time-permitting a limited survey of Reserve users.

Consultant Selection. The selection of the consultants will be based on the following criteria:

- Had/has ties to project location(s)
- Known Hawaiian cultural resource person
- Knowledgeable about fishing practices
- Knowledgeable about marine resources
- Referred By other cultural resource people
- Identified by Friends of Keone'ō'io

Description of proposal to Prioritize Protection Measures

Given the variable levels of impact to cultural resources within Ahihi-Kinohiwa NAR and Keone'ō'io, and the constraints of finite budgets, prioritization of protection measures is clearly necessary. If successfully designed and implemented, prioritization will ensure that cultural resources receive the amount and degree of protection suitable to their susceptibility to future impacts and value to interested communities.

We propose a method that ranks cultural resources on four variables. These variables include 1) Scientific Value, 2) Cultural Value, 3) Site Condition, and 4) Site Location. Each of these is an important element in prioritizing protection measures. The variables will be ranked based on the following criteria:

Scientific Value – The Scientific Value of features, sites, or site complexes may be ranked as high, moderate, or low based on their potential to contribute information important to the interpretation of past life-ways or historical

processes. In this respect, the many outstanding research problems in Hawaiian archaeology will serve as an important guide in the ranking system for this variable.

Cultural Value – Cultural Value will be ranked according to the results of the “gathering cultural information” portion of the project (see previous section). Informant interviews will include questions on the cultural value of specific types of features and sites likely to be encountered during the archaeological survey. Cultural concerns raised by the Hawaiian community in the past will also be incorporated into the ranking system. Like Scientific Value, this variable will be ranked as either high, moderate, or low.

Site Condition – Site Condition refers to the state of physical preservation of a feature, site, or site complex. Evidence of trampling, re-use of stone, looting, vandalism, recreational impacts, and the degenerative effects of natural weathering will all be evaluated. An estimate will be made of the percentage of the site or feature, which is in its original or near-original state. A site or feature with greater than 75% of its original structure is considered to be in good condition. Those retaining from 75% to 40% original structure is considered to be in moderate condition. A site or feature with less than 40% of its original structure intact will be considered in poor condition.

Site Location – Site Location refers to a proximic assessment of a site’s vulnerability to future impacts. Important considerations for this variable include the site’s accessibility from roads and trails and it’s proximity to active recreational areas (e.g. campsites, coastline, or ATV areas). Site Location will be ranked as highly secure, moderately secure, or threatened.

Once the sites have been individually ranked for each of the four variables, the rankings will be converted to numeric form and aggregated to provide a basis for prioritization (Tables 1 and 2).

Rankings for Scientific Value, Condition, and Location will be assigned numeric values ranging from 0 (low scientific value, poor condition, or highly secure location) to 2 (indicating high scientific value, good condition, or 'threatened' location).

Rankings for Cultural Value will be more heavily weighted in the tabulation (Table 2). Numeric values will be higher than comparable rankings for the other variables by a factor of two. Cultural Value will therefore be assigned numeric values ranging from 4 (indicating high cultural value) to 1 (indicating low cultural value).

After numeric values are assigned, a simple summation will generate relative Priority Levels with a theoretical range of between 1 and 10. Priority Level 1 indicates very low priority for protection measures while Priority Level 10 indicates a very high priority.

Table 1. Conversion Table for Assigning Numeric Values.

Ranking	Cultural	Scientific	Condition	Location
High value, good condition, threatened location	4	2	2	2
Moderate value, moderate condition, and moderate locational security	2	1	1	1
Low value, poor condition, high locational security	1	0	0	0

Table 2. Sample Tabulation and Priority Levels.

Site No. (site type)	Cultural	Scientific	Condition	Location	Priority Level
1 (house platform)	4	2	1	2	9
2 (historic wall)	1	1	2	0	4
3 (Hieau)	4	2	0	0	6
4 (agr. mound)	1	0	2	2	5

It should be remembered that the prioritization method is not intended to rank the overall importance of individual sites, but rather their priority for protection based on aggregate rankings for the four variables. If implemented properly, sites in good condition with high scientific and cultural value and in immediate danger of future impact will be ranked highest. Conversely, those in poor condition with low scientific and cultural value and not likely to receive immediate future impact will be ranked lowest. It is, of course, up to the discretion of the cultural resource manager to elevate or lower the Priority Levels based on factors not accounted for by the four variables described above.

Discussion

The prioritization method outlined above has many advantages from a management perspective. First, it is simple in design and adds rigor to an inherently subjective process. The method is also flexible. New variables can be added or dropped as needed. Likewise, ranking criteria and numeric weighting may be modified as new information becomes available or management concerns shift.

Another advantage of the method is its close integration with the field portion of the project. Cultural interviews and archaeological survey will provide sound empirical data for assigning rank to the four variables. The method is also amenable to GIS analysis. Priority Levels for cultural resources can be plotted on maps or aerial photographs of Ahihi-Kinau NAR and Keone'ō'io using GPS data collected during archaeological fieldwork. This will give planners a useful overview of their prioritized cultural resources as well as their relationships to natural resources, infrastructure, and other geographic features.

Description of proposal to design management plan

A CRMP for Ahihi-Kinau NAR and Keone'ō'io will serve a number of purposes, but will most importantly provide for the protection of cultural resources for the enjoyment and education of present and future generations. Previous sections outline a plan for identifying and evaluating cultural resources using innovative archaeological and cultural survey methods as well as a multi-variate method for protection prioritization. Ideally, the information generated during these earlier stages of work will be useful in guiding the

implementation of both short-term and long-term management goals. The relationship between data collection, management planning, and management actions should therefore follow the course shown in Figure 3 below.

A CRMP designed by GANDA will contain both proactive and reactive components aimed at minimizing future impacts to cultural resources and maximizing non-destructive use by the public and the scientific community. Equally important, the plan will be consistent with the mission of Hawai'i's Natural Area Reserve System.

Short-Term Management Goals

Given the high volume of public use at Ahihi-Kinau NAR and Keone'ō'io, the first goal of the CRMP will be to outline measures sufficient to prevent further degradation of cultural resources. Sites that have already been impacted must be stabilized and access to high priority sites must be limited. To accomplish this, the full range of impacting factors must be identified and proper preventative and/or restorative measures outlined. Past work has proposed limiting and re-routing access combined with a program of temporary signage (Donham 2002). If used in conjunction with the results of site prioritization, such a program would be highly effective in reducing unintentional impacts.

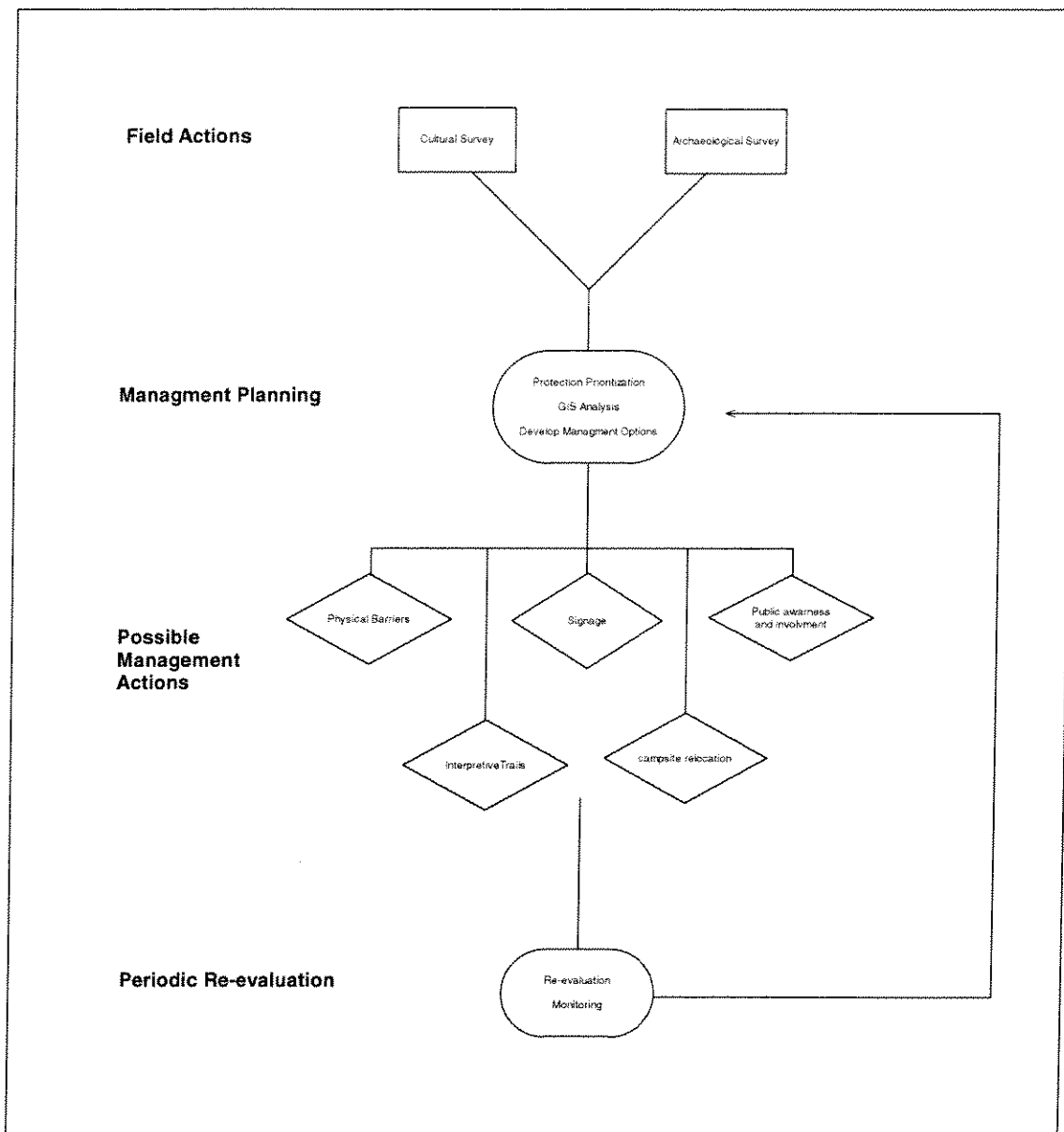


Figure 3. Flow diagram of cultural resource management sequence.

Long-Term Planning

Long-term planning will likely utilize many of the techniques and measures used for short-term planning, but must also take into account a much longer time horizon. Long-term measures will require a systematic investigation of all types of impacts and their causes.

Since the most destructive force affecting cultural resources is human impact, a CRMP must initially examine the various modes of human agency involved (Table 4). As is intuitively obvious, different modes of human impact require different protective measures. Simple unintentional impacts might be prevented with signage. Intentional non-malicious impacts may require community involvement and education. Dealing with intentional site destruction may require the involvement of law enforcement agencies.

Table 4. Three Primary Modes of Human Impact to Cultural Resources.

Mode of Impact	Definition
Unintentional impacts	Those resulting from ignorance of the existence of archaeological resources.
Intentional, non-malicious impacts	Those resulting from knowledgeable actors who do not believe they are impacting cultural resources by their activities.
Intentional site destruction	Vandalism and looting.

In all cases, an over-arching plan to re-design and rationalize the infrastructure of Ahihi-Kinau NAR and Keone'ō'io will likely be necessary. At a minimum, this would require physical barriers and the re-routing of roads and trails away from high priority sites. A system of interpretive trails would be useful for channeling casual visitors and tourists. Such a trail system would include educational signage, trail guides, and composting latrines at trailheads. Educational material and signage should integrate cultural, historic, and ecological information about Ahihi-Kinau NAR and Keone'ō'io.

The project GIS will contribute models for management by generating site boundaries, but also by providing data to assess human impact on sites and landscapes. Points and vectors of access from the roadway to the beach, areas of congestion, and ATV paths can be viewed and analyzed. Alternate access, trails and assembly areas can be designed using GIS imagery, and provided as development alternatives for public evaluation and dialogue.

Once infrastructure has been re-engineered, impacted cultural resources will require stabilization and possibly limited reconstruction. Intrusive modern features should be deconstructed and signage erected to discourage subsequent stone construction.

Periodic Re-evaluation

Another important aspect of GANDA's proposed CRMP would be a plan for monitoring and re-evaluating cultural resources over time (Figure 3). Monitoring of site integrity is clearly necessary to ensure that protection measures remain effective. Likewise, periodic re-evaluation of cultural resources will allow managers to identify and respond to shifting trends in public use at Ahihi-Kinau NAR and Keone'ō'io. If necessary, re-evaluation may lead to a re-prioritization of sites and/or adaptive modification of protection measures.

Community Involvement

In providing for long-term security, non-destructive utilization, and periodic monitoring, GANDA recognizes the key role of an active and involved local community. GANDA's CRMP would seek to identify innovative ways in which to utilize interested community groups to assist in meeting management goals. Groups and individuals will be drawn into the investigative and evaluation phases of this project through the cultural impact assessment and ethnographic studies outlined above. An important example of the power of community involvement is present in the volunteer and educational work performed by Friends of Keone'ō'io (Donham 2002). The scope of community involvement should be expanded by out-reach to other civic organizations, schools, and interested groups on Maui and around the state. In preparing a CRMP, GANDA will identify such groups around the state and make initial inquiries into their potential levels of commitment to such a project.

On-Going Scientific Research

Long-term planning should also provide for scientific investigation of archaeological sites at Ahihi-Kinau NAR and Keone'ō'io. A GANDA CRMP will help to set research standards and provide a model for interpreting traditional Hawaiian land-use and subsistence in a coastal leeward environment.

Timeline

This project will be a priority project for Garcia & Associates. On award and following notice to proceed, Garcia & Associates personnel will begin field effort within 30 days. Field effort will require a team of four for 30 days concurrent with effort by the project ethnographer and coordination of cultural consultants with field visits.

Analysis and synthesis of project results will require 90 days following the end of field investigations. A draft final report will be compiled and submitted within 90 days from end of field.

Final reporting and surrender of project data and materials will be completed within 30 days following receipt of comments on the draft final report.

CRM Plan for Ahihi-Kinau and Keone'o'io

Page 1 of 1

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IV. DETAILED PROJECT BUDGET

The total available budget for this project is \$100,000. The following effort is tailored to the maximum funding allowed.

Personnel	hours		cost
Employees	field	office	
Pacific Manager	40.0	40.0	\$ 3,200.00
Principal Investigator	40.0	40.0	6,160.00
Project Director	120.0	140.0	7,800.00
Field Assistant 1	120.0	0.0	2,160.00
Field Assistant 2	120.0	0.0	2,160.00
Anthropologist	80.0	80.0	6,400.00
Copy Editor/Formatter Assistant	0.0	120.0	2,040.00
GIS Specialist	40.0	100.0	4,480.00
Employee wage costs			34,400.00
Overhead, 121%			41,624.00
Total Employees.....			\$ 76,024.00
Transportation			
Airfare Honolulu-Project/Rtn			1,150.00
Airfare Mainland-Honolulu/Rtn			800.00
Vehicle Rental			1,800.00
Vehicle Fuel and Maintenance			300.00
Total Transportation.....			4,050.00
Accommodation and Per Diem			
Per Diem for 4 persons			2,400.00
Per Diem for 4 persons			5,200.00
Other Per Diem			1,000.00
Total Accommodation and Per Diem.....			8,600.00
Equipment, Supplies, Services			
Field Supplies	100.00	Copying Supplies & Services	200.00
Photo Supplies/Processing	0.00	Aerial Photos	100.00
Total Equipment, Supplies, Services.....			400.00
Project Total			\$ 89,074.00
Profit			7,125.92
Hawaii Tax			3,562.96
GRAND TOTAL			\$ 99,762.88

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APPENDIX A: CURRICULUM VITAE OF KEY PERSONNEL



JOHN A. PETERSON

Pacific Regional Manager/Principal Investigator

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Pacific Regional Manager
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Career Goals and Accomplishments:

As an archaeological investigator, Dr. Peterson has conducted Cultural Resource Management (CRM) and archaeological and ethnographic research projects in the American Southwest, Texas, California, the Congo, northern Mexico, the Philippines and Hawaii. As both faculty and scholar at the University of Texas at El Paso, Peterson's focus and accomplishments were on teaching and research of historical ecology, technology and society and archaeology. His research and extensive publications include investigations and articles on the historical archaeology of the Southwest and northern Mexico, Hawaiian archaeology, and the history and archaeology of the Philippines. He recently conducted a marine ethnographic study for the Kaloko-Honokohau National Park on the island of Hawai'i, and has extensive experience consulting with tribal and indigenous groups on environmental and cultural resource issues. He has conducted numerous cultural resources studies and impact assessments in the Southwest U.S., Texas, and Hawai'i for compliance with Section 106 of the National Historic Preservation Act (NHPA) and the National Environmental Policy Act (NEPA). Peterson is a specialist in heritage preservation and has extensive experience in the policy making and application of heritage and restoration projects. His clients have included federal, state and local governments, utilities, and private developers, and include a broad range of CRM investigations, including Traditional Cultural Practices and Cultural landscapes analyses. He has contributed to and served as expert witness in a number of state and federal EA and EIS undertakings. Peterson has been a leader in community heritage preservation in the Spanish colonial landscapes of Socorro and San Elizario, Texas, and in Cebu in the Philippines and has contributed his expertise in research, grantwriting, and project coordination to numerous community projects.

Education:

1967-1969	University of Chicago, Chicago, Illinois Anthropology
1969-1972	Antioch College, Yellow Springs, Ohio B.A. Environmental Studies
1981	Texas Historical Commission, Winedale Museum Seminar
1983-1988	University of Texas, Austin, Texas M.A. Anthropology
1993	University of Texas, Austin, Texas Ph.D. Anthropology

Experience:

1975-1979	Dayton-Montgomery County Park District, Dayton, Ohio Carriage Hill Farm and Reserve Director, Historical Farm and Education Center
1984-	Vice President, Archaeological Research, Inc.
1991-	Lecturer and Adjunct Assistant Professor of Anthropology, University of Texas at El Paso President, New World Consultants, Inc.
1994-	Assistant Professor of Anthropology University of Texas at El Paso
1995-	Director, Anthropology Research Center, UTEP
1998-	Director, Asian Studies Program, UTEP
2002-	Director, Cultural and Environmental Assessment Institute for Policy and Economic Development University of Texas at El Paso Visiting Professor, Dept. of History, University of San Carlos Director, Archaeology Studies Program, USC

Significant Publications:

Books:

1986	<i>Facts As I Remember Them: The Autobiography Of Rufe Lefors</i> , editor, with an Introduction, University of Texas Press, Austin, Texas.
2001	<i>Beyond the Mexican Mountains</i> , by Robert Zzing, co-editor with Howard Campbell and David Carmichael, University of Texas Press, Austin.
2004	<i>Socorro</i> , co-author with Howard Campbell, in preparation, under contract, University of Texas Press, Austin.

Books as Series Editor:

- 1995 Origins of Rice Agriculture: The Preliminary Report of the Sino-American Jiangxi (PRC) Project, SAJOR, Edited by Richard S. MacNeish and Jane G. Libby, *Publications in Anthropology No. 13*, El Paso Centennial Museum, The University of Texas at El Paso. Co-editor of Series with David L. Carmichael.
- 1998 Excavation of Pintada Rockshelter on McGregor Firing Range in New Mexico, by Richard S. MacNeish. *Publications in Anthropology No. 13*, El Paso Centennial Museum, The University of Texas at El Paso. Co-editor of Series with David L. Carmichael.
- 1999 *Crossing Borders, Reinforcing Borders: Social Categories and Narrative Identities on the U.S. - Mexico Frontier*, by Pablo Vila. Co-editor of Inter-America Series with Duncan Earle, University of Texas Press.

Articles:

- 1988 "Settlement and Subsistence Patterns of the Reserve Phase and Mountain Mogollon: A Test Case in Devils Park, New Mexico." *TheKiva* 53:113-127.
- 1997 Book Review for *American Antiquity*, Journal of the Society for American Archaeology, of *Advances in Texas Archeology: Contributions from Cultural Resources Management*. JAMES E. BRUSETH and TIMOTHY K. PERTTULA, editors. Cultural Resource Management Report 5, Texas Historical Commission, Austin, 1995.
- Evidence for Mimbres Mortuary Practices in the Desert Lowlands of Far West Texas", for General Notes Section, *Texas Journal of Science*, vol. 49, with Jeff D. Leach and Harry W. Clark.
- "Provenance Determination from ICP-MS Elemental and Isotopic Compositions of El Paso Area Ceramics," by Nicholas E. Pingitore, Jr., Jeff D. Leach, Joshua Villalobos, John A. Peterson and David V. Hill. Materials Research Society Annual Meeting, and published in *Proceedings*.
- "ICPMS - Isotopic Signatures of Lead in Ceramic Glazes of the Rio Grande Valley, New Mexico, 1300-1500 AD," Materials Research Society Annual Meeting, Boston, MA, December 1996, with Nicholas Pingitore, Jeffrey D. Leach. Joshua Villalobos, Pamela Vandiver. Delivered at the meeting, and published in *Proceedings*.
- 1998 Book Review: *Comanche Political History: An Ethnohistorical Perspective 1706-1875*. By Thomas W. Kavanagh. Lincoln: University of Nebraska Press, 1996, for *Ethnohistory*, 44:4.
- "Applications of Laboratory-Based X-Ray Microfluorescence Analysis in Archaeometry," N.E. Pingitore, J.D. Leach, A. Iglesias, C.G. Sampson, D.L. Carmichael, and J.A. Peterson, *Proceedings, Microbeam Analysis Society*, July
- "Research and Interpretation of the Camino Real from Taos, New Mexico, to Parral and Chihuahua, Chihuahua," in *Abstracts, NASA University Research Centers, Technical Advances in Aeronautics, Space Sciences and Technology, Earth Systems Sciences*,



- Global Hydrology, and Education*, editors T.L. Coleman, B. White, and S. Goodman, Alabama A&M University, Center for Hydrology, Soil Climatology and Remote Sensing; p. 139, by Alfredo Enriquez, PACES, John A. Peterson, Anthropology Research Center, UTEP, and Nicholas Pingitore, Department of Geological Sciences, UTEP.
- 1999 "Discourse in Clay," with David O. Brown and David V. Hill, *Bulletin of the Texas Archeological Society*, 70:421-438.
- "East Meets West on the Camino Real: Chinese Export Porcelain in Nuevo Vizcaya and Nuevo Mexico", chapter in Gabrielle Palmer, editor, with David V. Hill, *Camino Real de Tierra Adentro*, Cultural Resources Series No. 13, New Mexico Bureau of Land Management.
- Book Review: *The Alamo Restoration and Conservation Project: Excavations on the South Transept*, by Barbara Meissner, CAR-UTSA, in *Historical Archaeology* 33:2, pp. 143-4.
- 2000 "Advances in Colonial Archaeology in Chihuahua: the Case of El Carrizal," R. B. Brown, Patricia Fournier, J. Peterson, chapter in *Papers for Patrick Beckett: New Mexico Archaeological Society*, ed. David Kirkpatrick and Melihu Duran.
- 2003 "Cebuan Chiefdoms? Archaeology of Visayan and Colonial Landscapes in the 16th and 17th Century Philippines," *Philippine Quarterly of Culture and Society: Special Issue: Philippine Archaeology: Directions and Re-Directions Vol. 31(March-June):46-97*, University of San Carlos, Cebu, Philippines.
- Book Review: *The Archaeology of the Central Philippines: A Study Chiefly of the Iron Age and its Relationships*, by Wilhelm G. Solheim II. *Philippine Quarterly of Culture and Society: Special Issue: Philippine Archaeology: Directions and Re-Directions Vol. 31(March-June):130-133*. University of San Carlos, Cebu, Philippines.
- "Native Borderlands – People and Places in the Indigenous World of the U.S. – Mexico," with Michael Wilken. Border 2012. Environmental Protection Agency.
- "Mexican Indigenous Groups of the Border Region," with Michael Wilken. Border 2021. Environmental Protection Agency.
- "The Social Perception of Environmental Problems in Ciudad Juárez/El Paso: A dissonant chorus in many languages," Book chapter in *Border Ethnographies: The Limits of Border Theory*, J. Peterson and P. Vila, University of Minnesota Press, volume ed. Pablo Vila, UTSA.
- "Settlement and Ceramics in Northern New Spain: A Case Study of Brownware Pottery and Historical change" Roy B. Brown, Patricia Fournier, and David V. Hill, book chapter for University of Utah publication of Symposium at Society for American Archaeology, April 2000, "Archaeology of Northern Mexico."

"Landscape Contexts for Historical Archaeology in the Visayas," *Semantics and Systematics: Philippine Archaeology*, pp. 20-29. Proceedings of the Society of Philippine Archaeologists. 2003 Winter.

Course Publications:

- 1998 *Technology in Context: Readings in Technology and Society*, co-editor with Elizabeth P. Shea, Eddie Bowers Publishing, 1999. Collected volume.
- 2000 *Keeping Technology in Context: Readings in Technology and Society*, co-editor with Peter Golding and Peter Robinson. Eddie Bowers Publishing 1999, Collected volume.

Monographs (Professional Review):

- 1988 *Prairie Hinterland: The Archaeology of Palo Duro Creek, A Cultural Resources Inventory*. Report of Investigations, 307 pp. Also Masters Thesis, University of Texas at Austin.
- 1990 *Archaeological Testing Of Three Sites On The Jemez River, New Mexico*. Report submitted to the Santa Fe National Forest (November).
- 1991 *Prairie Hinterland: The Archaeology of Palo Duro Creek, Testing, Phase II*. Edited by John Allen Peterson, 599 pages.
- 1992 *Lower Jemez Campground Data Recovery Project*. Report submitted to the Santa Fe National forest (with Lori Hawthorne).
- La Piedra De Cuchilla: The Cultural Resources Of The Bason Land Exchange, Los Alamos, New Mexico*. Report submitted to the Gila National Forest, with Christian B. Nightengale and David C. Carmichael.
- 1994 *El Valle Bajo: The Cultural History of the Lower Rio Grande Valley of El Paso*. Edited by John A. Peterson and David O. Brown, 12 volumes.
- 1997 *Historical Study Of The Manzano Land Grant Acequia Systems, Manzano Land Grant, Manzano, New Mexico*, Report to the New Mexico Historic Preservation Division, Grant Project #35-06-11108.04, with Ada González-Peterson and David Lujan.
- 1998 *Union Plaza Archaeological Project*, with Stephen Mbutu and Mark Willis, Anthropology Research Center Technical Report.
- The University Of Texas At El Paso Wildhorse Canyon Archaeological Project: A Field Report On The 1997 University Of Texas At El Paso Archaeological Field School*. Report submitted to the Santa Fe National Forest and the Historic Preservation Division, State of New Mexico, with David V. Hill and Tim Graves.
- 2000 *The State Office Building Archaeological Project: Testing Report*. Report submitted to the General Services Commission and the Texas Historical Commission, State of Texas, with Stephen Mbutu, Bill Lockhart, William J. Fling III, Eric Bangs and Mark Willis.
- 2001 *Archaeological Investigations of the Meyer Pithouse Village*, Fort Bliss, Texas. U.S. Army Air Defense Artillery Center and Fort Bliss Directorate of the Environment, Conservation Division, Fort Bliss, Texas.

- 2002 *The 1995 San Elizario Plaza Field School*, with Timothy Graves and David V. Hill.
Texas Department of Transportation and University of Texas at El Paso.
- 2004 *Visayan Settlement by the River: Archaeological Investigations at the Late 16th and 17th Century Site of Salug in Sitio Valladolid, Carcar, Cebu. The Salug Archaeology Project.*
A Report to the National Commission for Culture and the Arts, Republic of the Philippines, March 31.

Periodicals, Reports, Contributions:

200+ Archaeological compliance and research reports.

Honors, Awards, and Community Service:

- 1967 Early admittance, University of Chicago, Chicago, Illinois.
- 1984 Swenson Fellowship in Conservation, Texas Memorial Museum, Austin, TX
- 1985 Swenson Fellowship in Conservation, Texas Memorial Museum, Austin, TX
- 1986 Phi Kappa Phi, University of Texas, Austin, Texas.
- 1987 Appointed Book Review Editor, *Heritage*, publication of the Texas Historical Foundation.
- 1995 Awarded Excellence in Preserving Texas History, Annual Meeting of the Texas Historical Commission, Austin, for the City of Socorro Historical Landmark Commission (March).
Appointed co-editor, Border Social Science Series, University of Texas Press, Austin (May).
- 1997 Appointed to the State Board of Review, National Register Program, Texas Historical Commission, Austin, Texas.

Presentations:

125+ Conference, Symposia, Public Presentations

Significant Grants:

- 1982 First and Second Annual Traditional Music Festival, Pioneer Farm, Austin, Texas. Texas Committee for the Arts. \$7,500 each.
- 1991 Lo Nuestro: Three Cultures Along the Rio Grande, Texas Council for the Humanities, \$7,461, with Ada Gonzalez-Peterson and David O. Brown (P.I.).
- 1992 Ford Foundation, Mexico, for general expenses for the conference "At the Pass: Cultural Adaptation and Ecological Change in Northern Mexico and Texas", to be presented at UTEP March 17-20, 1993, \$10,000.
Historical Ordinance and District Interpretive Brochure in Spanish and English, Socorro, Texas, from the Certified Local Government Program of the Texas Historical Commission, \$5,000. City of Socorro Historical Landmark Commission.

- National Register Nomination for Rio Vista Farm, Socorro, Texas, from the Certified Local Government Program of the Texas Historical Commission, \$5,000. City of Socorro Historical Landmark Commission.
- 1994 Ford Foundation, Mexico, for expenses for the conference "Tendencias and Fronteras", to be presented at the *Escuela Nacional de Antropología e Historia, Chihuahua, Chih.*, October 1994, \$7,000.
- Low-income historically compatible housing design for Socorro and San Elizario, Texas, from the Certified Local Government Program of the Texas Historical Commission, \$5,000. City of Socorro Historical Landmark Commission.
- Rehabilitation and Cyclical Maintenance Plan for the Rio Vista Farm, Socorro, Texas, from the Certified Local Government Program of the Texas Historical Commission, \$5,000. City of Socorro Historical Landmark Commission.
- 1995 San Elizario Plaza Archaeological Field School. Texas Department of Transportation. \$100,000.
- 1996 Mission Trail Enhancement Archaeological and Historical Preservation Program. Texas Department of Transportation. \$183,522.
- Manzano Land Grant Water and Land-Use Studies from the Historic Preservation Division, State of New Mexico, \$800.
- National Science Foundation, Academic Infrastructure Program, Instrumentation, Development and Acquisition Solicitation, Acquisition of X-Ray Fluorescence Instrumentation for Archaeological, Geological, and Environmental Research and Training, \$111,126, with Nicholas Pingitore, David Carmichael, and Jorge Gardea-Torresday.
- 1999 PACES Faculty Fellowship - \$4,000 - June
- CERM/SCERP Native American Program - \$60,000 - October
- Governor's Office Criminal Justice Program, Socorro Mission Restoration \$130,000 - September
- Texas Historical Commission Preservation Trust Fund for Cornerstones/Socorro Mission Restoration - \$15,000 - October
- 2000 Governor's Office Criminal Justice Program, Socorro Mission Restoration \$94,000 - September
- National Endowment for the Humanities Faculty Research Award - \$24,000 - September.
- CERM/SCERP Native American Program - \$40,000 - December
- 2001 Governor's Office Criminal Justice Program, Socorro Mission Restoration \$94,000 - September
- Consulate of Spain to the Philippines - \$2,000 - Historical landscapes of Cebu, University of San Carlos, Cebu, Philippines - November
- Fulbright US Scholar award for University of San Carlos, Philippines - seven months research appointment - \$20,000
- 2002 National Commission on Culture and the Arts, Philippines, for Archaeological Research and Bantayan Preservation - \$2,400 - December

References:

Prof. James A. Neely
Department of Anthropology
University of Texas at Austin
Austin, Texas 78712
(512) 471-0056

Prof. Howard Daudistel, Dean
College of Liberal Arts
University of Texas at El Paso
Liberal Arts Building
El Paso, Texas 79968
(915) 747-6828

Prof. Karl Butzer
Department of Geography
University of Texas at Austin
Austin, Texas 78712
(512) 471-0056

Courses Developed since 1991

University of Texas at El Paso

Anth 3101	Introduction to Physical Anthropology and Archaeology
Anth 3102	Introduction to Cultural Anthropology
Anth 3303	Ecological Anthropology
Anth 3309	Mesoamerican Cultures
Anth 3313	Historical Archaeology of El Paso/Ciudad Juárez
Anth 3315	Urban Anthropology
Anth 3359	Field Methods in Archaeology
Anth 3360	Laboratory Methods in Archaeology
Anth 6347	Archaeological Field Studies
ITS 3350	Interdisciplinary Technology and Society
Labs 3300	The Americas
Soci 5375	Southwestern Cultures (also MAIS History of an Idea)
Univ 2350	University Studies - Technology and Society

University of San Carlos, Cebu

Anth 207	Anthropology and History
Hist 50/Anth 131	World Prehistory
Hist 239/Anth 283	Historical Archaeology of Cebu
Hist	Museum Studies
Hist	Environmental History

Recent Reports

2001

DOWNTOWN EL PASO TOLTEC PROJECT: ARCHEOLOGICAL MONITORING REPORT, with Stephen K. Mbutu and Mark Willis, report to the Texas Historical Commission (March).

CULTURAL RESOURCES INVESTIGATIONS OF SECTIONS 29 AND 31, NATIONS SOUTH WELL QUADRANGLE, EAST EL PASO COUNTY, EL PASO, TEXAS, w. Timothy B. Graves, and Mark Willis (September).

AN ARCHAEOLOGICAL SURVEY OF A PROPOSED POWERLINE CROSSING, WILDCAT CREEK NORTHWEST OF SPRINGERVILLE, ARIZONA. w. Mark Willis, for Navopache Electric (September).

THE SOCORRO MISSION RESTORATION PROJECT: ARCHAEOLOGY AND COMMUNITY INTERACTION. A report to the Texas Historical Commission, Preservation Trust Fund (October).

ARCHAEOLOGICAL MONITORING OF PHASE I ACTIVITIES FOR THE MISSION TRAIL ISTEa (INTERMODAL SURFACE TRANSPORTATION EFFICIENCY ACT OF 1991) PROJECT. w. Mark Willis. Report to the Texas Department of Transportation (October).

SAN ELIZARIO PLAZA MONITORING REPORT, for the ISTEa Project, with Mark Willis, TAC Permit #1972, (Nov).

A FIVE-ACRE GRANITE QUARRY ARCHAEOLOGICAL SURVEY IN FAR WEST

HUDSPETH COUNTY, for Mr. James Patterson, with Mark Willis, TAC Permit #2523 (Nov).

2002

THE PUBLIC SERVICE BOARD/EL PASO WATER UTILITIES LAND EXCHANGE IN NORTHWEST EL PASO ARCHAEOLOGICAL SURVEY. A report for the Public Service Board/El Paso Water Utilities and Hunt Building Corporation, with Mark Willis and Tim Graves, TAC Permit #2336 (February 1).

THE FABENS BORDER CROSSING PROJECT, for the County of El Paso and Raba-Kistner, with Mark Willis, TAC Permit #2796 (April 1).

MALL DEL NORTE CELL TOWER PROJECT, LAREDO, TEXAS, for A & M Engineering and Environmental Services, Inc., with Mark Willis (May 3)

RIO VISTA FARMS: ARCHAEOLOGICAL TESTING FOR SEWER LINE CONSTRUCTION, for the County of El Paso, with Joanne Kropp, TAC Permit # 1796 (May 28).

VISTA DEL SOL CELL TOWER PROJECT, EL PASO, TEXAS, for A&M Engineering, with Mark Willis (May 29).

MEADOW AND SAUNDER CELL TOWER PROJECT, LAREDO, TEXAS, for A & M Engineering, with Mark Willis (June 24).

WORLD TALC COMPANY: SECTION 26 ARCHAEOLOGICAL SURVEY, for Reneau and Associates, Inc., with Mark Willis, TAC Permit # 2886 (July 1).

AN ARCHAEOLOGICAL SURVEY OF A PROPOSED POWER LINE FOR THE WINK-CRAIGLER WELL, NEAR EAGAR, ARIZONA, for Navopache Electric Coop, with Mark Willis (Sept. 10).

SANTA TERESA POWER LINE ARCHAEOLOGICAL SURVEY, for El Paso Electric Co., with Mark Willis, TAC Permit #2947 (Sept. 16).

LOOP 375 POWER LINE ARCHAEOLOGICAL SURVEY, for El Paso Electric Co., with Mark Willis, TAC Permit #2948 (Sept. 16).

EAST LAKE BLOCKUP, EAST EL PASO COUNTY, TEXAS: PHASE I, for Colony Partners East Limited Partnership, with Mark Willis, TAC Permit # 2923 (Oct 3).

ARCHAEOLOGICAL MONITORING AT 1008 AND 1010 MYRTLE, EL PASO, TEXAS, FOR Acme Environmental Systems, JAPA, Inc. (Nov 10).

H.G. FOSTER: ARCHAEOLOGICAL INVESTIGATIONS NEAR SMUGGLER'S PASS, for Colony Development, with Mark Willis, TAC Permit #2482 (Nov 20).

PETROGRAPHIC ANALYSIS OF TWO HISTORIC NATIVE-MADE CERAMICS FROM 41EP5184, for SLI Engineering, with David V. Hill, TAC Permit # 1759 (Dec 10).

ARCHAEOLOGICAL INVESTIGATIONS AT 41EP5448, IN FAR EAST EL PASO COUNTY, TEXAS, for El Paso Electric Co., with Mark D. Willis, Stephen K. Mbutu and David Camarena Garces, TAC Permit #2371 (Dec 20)

2003

EAST LAKE BLOCKUP, EAST EL PASO COUNTY, TEXAS: ARCHAEOLOGICAL SURVEY AND TESTING AT EIGHTEEN SITES IN FAR EAST EL PASO COUNTY, TEXAS, 2 Volumes, for Colony Partners East Limited Partnership, with Mark Willis, TAC Permit # 2923 .

ARCHAEOLOGICAL MONITORING FOR THE KALAHEO AVENUE SEWER PROJECT, KAILUA, O'AHU, for Delta-Kinsel, International Archaeological Research Institute, Inc., Honolulu (April).

SUBSURFACE ARCHAEOLOGICAL TESTING PLAN IN SUPPORT OF ANTI-TANK TRAP AND EXCAVATION TRAINING AREAS, MARINE CORPS TRAINING AREA BELLOWS, O'AHU, HAWAI'I, for Department of the Navy, Pacific Division, Pearl Harbor, Hawai'i. International Archaeological Research Institute, Inc., Honolulu (May).

SITE SAFETY AND HEALTH PLAN FOR ARCHAEOLOGICAL TESTING IN SUPPORT OF ANTI-TANK TRAP AND EXCAVATION TRAINING AREAS AT MARINE CORPS TRAINING AREA, BELLOWS, O'AHU, HAWAI'I, for Department of the Navy, Pacific Division, Pearl Harbor, Hawai'i. International Archaeological Research Institute, Inc., Honolulu (May).

RESLER CANYON ARCHAEOLOGICAL SURVEY, EL PASO COUNTY, TEXAS, with Mark D. Willis, . Report prepared for Licon Engineering for submittal to the Texas Historical Commission, Austin (July).

ARCHAEOLOGICAL MONITORING PLAN FOR THE PROPOSED WAIU FUEL

PIPELINE, 'EWA DISTRICT, ISLAND OF O'AHU, for Hawaiian Electric Co., Inc., Honolulu. International Archaeological Research Institute, Inc., Honolulu.

DRAFT ARCHAEOLOGICAL ASSESSMENT CONCERNING PROPOSED U.S. MARINE CORPS JUNGLE WARFARE TRAINING IN PORTIONS OF WAIKANE VALLEY, ISLAND OF O'AHU, HAWAI'I, with Coral Magnuson and Mike Carson. Prepared for Wil Chee Planning and the U.S. Marine Corps Base Hawai'i. International Archaeological Research Institute, Inc., Honolulu.

PEARL CITY PENINSULA WORK PLAN FOR ARCHAEOLOGICAL INVESTIGATIONS, TMK 97-013-001, 97-005-002. Prepared for Helber Hastert and Fee, Planners and for Commander, Navy Region Hawaii and Pacific Division, Naval Facilities Engineering Command, Pearl Harbor, Hawai'i. International Archaeological Research Institute, Inc., Honolulu Hawai'i.

DATA RECOVERY TREATMENT PLAN FOR THE HISTORIC KEANAKOLU ROAD, SITE 50-10-(15, 24, 32)-22939, ISLAND OF HAWAI'I. Prepared for Belt Collins Hawai'i, Honolulu. International Archaeological Research Institute, Inc., Honolulu, Hawai'i.

HOLOCENE LANDSCAPES OF WAIMANALO BAY: ARCHAEOLOGICAL TESTING IN THE ANTI-TANK TRAP AREA, MARINE CORPS TRAINING AREA BELLOWS, O'AHU, HAWAI'I. With William Burdick and Coral Magnuson. Prepared for Department of the Navy, Pacific Division, Naval Facilities Engineering Command, Pearl Harbor, Hawai'i. International Archaeological Research Institute, Inc., Honolulu (October).

HISTORIC LANDSCAPES OF HUMU'ULA: ROADS AND WALLS OF THE MAUNA KEA SADDLE, ISLAND OF HAWAI'I. SADDLE ROAD, PTA-1, DATA RECOVERY INVESTIGATIONS, TMK 3-8-001. Prepared for Federal Highway Administration, Denver, CO. International Archaeological Research Institute, Inc., Honolulu (December).

2004

TRADITIONAL CULTURAL PROPERTIES ASSESSMENT: WAI-A-KANE SPRING. Prepared for U.S. Army Engineer District, Honolulu, Fort Shafter, Hawai'i. International Archaeological Research Institute, Inc., Honolulu (January).

ARCHAEOLOGICAL MONITORING AND DATA RECOVERY PLAN FOR THE ASIA-PACIFIC CENTER FOR SECURITY STUDIES PERIMETER BARRIER WALL AT FORT DERUSSY, WAIKIKI, KONA, ISLAND OF O'AHU, TMK (1)-2-6-005:001.

Prepared f

PARADISE OF THE PACIFIC: HISTORICAL ARCHAEOLOGICAL INVESTIGATIONS AT PEARL CITY PENINSULA, O'AHU, HAWAI'I, TMK 9-7-01-01, 9-7-04-01, 9-7-05-02, with William Burdick and Coral Magnuson. Prepared for Department of the Navy, Pacific Division, Naval Facilities Engineering Command, Pearl Harbor, Hawai'i. International Archaeological Research Institute, Inc., Honolulu (February).

THE SOCIAL HISTORY OF KEANAKOLU ROAD: HISTORIC LANDSCAPES IN THE MAUNA KEA SADDLE: SITE 50-10-(15,24,32)-22939, ISLAND OF HAWAII. With William F. Burdick. Prepared for Federal Highways Administration. International Archaeological Research Institute, Inc. Honolulu (March).

ARCHAEOLOGICAL LANDSCAPE ASSESSMENTS OF U.S. NAVY FACILITIES, O'AHU, HAWAI'I: KAHUKU, NCTAMS, WAHIAWA, RTF LUALUALEI, AND NAVMAG PH LUALUALEI. With William F. Burdick. Prepared for Department of the Navy, Pacific Division, Naval Facilities Engineering Command, Pearl Harbor, Hawai'i. International Archaeological Research Institute, Inc., Honolulu (May).

DRAFT BURIAL TREATMENT PLAN FOR THE OUTRIGGER TELESCOPES PROJECT, MAUNA KEA, HĀMĀKUA DISTRICT, HAWAI'I. TMK: Zone 4, Sec. 4, Plat 15:009. Prepared for National Aeronautics and Space Administration. International Archaeological Research Institute, Inc., Honolulu.



BOYD DIXON, Ph.D. (PBS&J)
Project Archaeologist / Pacific Islands

EDUCATION

B.A. from the New College, University of Alabama, 1983

M.A. in Anthropology, University of Connecticut, 1986

Ph.D. in Anthropology, University of Connecticut, 1989

REGISTRATION

Registry of Professional Archaeologists

MEMBERSHIPS

American Anthropological Association

Louisiana Archaeological Society

Pacific Science Association

Society for American Archaeology

Society for Hawaiian Archaeology

Society for Historical Archaeology

SPECIAL TRAINING

36 CFR Part 800 Revised, Guam, 2000

Section 106 Regulations, Honolulu, 1994
Cardio Pulmonary Resuscitation, Honolulu, 1999
First Aid, Guam, 1998
Hazwaper, Honolulu, 1999

LANGUAGES

Hawaiian 101, 102, Maui Community College, 1996-1997
Chamorro 110, Guam Community College, 1999
Spanish 291, 320, University of Connecticut, 1986-1987

REPRESENTATIVE EXPERIENCE

Dr. Boyd Dixon came to the Austin, Texas office of PBS&J with over 30 years of experience conducting archaeological research in North America, Latin America, Europe, and the Pacific. During this period, he has worked as a consultant for foreign governments, universities, local and regional museums, the National Park Service, the Hawaii State Historic Preservation Division, and several cultural resource management firms.

Dr. Dixon has supervised cultural resource management services for a number of North American core client sectors. These clients include energy (windmills, powerlines, hydroelectric dams, oil wells, and gas pipelines), infrastructure (waterways, reservoirs, airports, and highways), mining (coal and copper), forestry (national and state), industrial (IBM), the public sector (museums and reservations) and the government (National Park Service, Fish and Wildlife Service, Soil Conservation Service, US Navy, Army, Air Force, and Immigration Service). These services have involved archaeological reconnaissances, inventory surveys, data recovery, monitoring, and cultural resources management plans often undertaken as part of Environmental Assessments and Impact Statements required by state and federal legislation.

Dr. Dixon therefore brings PBS&J considerable expertise preparing high quality and cost effective archaeological project budgets and proposals, directing cultural resource management projects in the field and office, writing and editing technical reports and

documents, and maintaining a professional relationship with clients and local, state, tribal, and federal agencies.

ARCHAEOLOGICAL RECONNAISSANCE AND INVENTORY SURVEY

Archaeological reconnaissance and inventory surveys include a number of tasks, ranging from the identification of previously located historic properties in the archives to the recording of newly identified sites in the field. Such investigations are guided by general research questions addressing broad regions or specific properties under study. Archival records are often found in state, tribal, and local historic preservation offices, regional museums, university and city libraries, federal agencies in charge of Section 106 and 110 compliance, and on file at cultural resource management firms. Newly identified sites in the field are located by a combination of pedestrian survey and an examination of historic maps and air photographs, aided by local informant interviews where possible. Such sites are customarily sketched and photographed at the reconnaissance level and mapped in more detail at the inventory survey. Limited subsurface testing may also be undertaken at some sites to determine the spatial extent and date of buried cultural deposits. Descriptive data such as these are then synthesized in a detailed and comprehensive technical report, with graphic documentation appropriate to the level of investigation.

Pacific Islands

2004 Pacific Consulting Services Incorporated Hawaii (PCSI), Honolulu, Hawaii

- Crew member on a survey of the Hokuli`a Shoreline Park in Kona, Hawaii

2000-2002 AMEC Earth and Environmental, Inc. (AMEC), Honolulu, Hawai`i

- Senior Archaeologist directing the survey of the Lualualei Naval Magazine on O`ahu for the US Navy
- Senior Archaeologist directing the survey of the He`eia Training Area on O`ahu for the US Army
- Senior Archaeologist editing the results of the Makua 17 survey on O`ahu for the US Army
- Senior Archaeologist editing the results of the Kahuku Training Area survey on O`ahu for the US Army
- Senior Archaeologist editing the results of the Muanawili Golfcourse survey on O`ahu

- Senior Archaeologist directing the survey of the Ordnance and Waterfront Annex on Guam for the US Navy
- Senior Archaeologist editing the results of the Ordnance Annex survey on Guam for the US Navy

1998-2000 International Archaeological Research Institute, Inc. (IARI), Territory of Guam

- Supervising Archaeologist directing the FISC survey in Guam for the US Navy
- Supervising Archaeologist directing the GLUP survey in Guam for the US Navy
- Supervising Archaeologist directing the VOA survey in Tinian, CNMI, for the US Navy
- Supervising Archaeologist directing the Tinian Airport Expansion survey for the CNMI Ports Authority
- Supervising Archaeologist directing the Rota Highway 100 survey for the CNMI Department of Public Works
- Supervising Archaeologist participating in the Molokai Ranch survey of unexploded ordnance for the US Army

1995-1998 State Historic Preservation Division (SHPD), Wailuku, Maui, Hawai'i

- Supervising Archaeologist of the Kahikinui survey for the Department of Hawaiian Home Lands on Maui
- Supervising Archaeologist directing Anahola survey for the Department of Hawaiian Home Lands on Kaua'i

1991-1994 Bernice Pauahi Bishop Museum (BPBM), Honolulu, Hawai'i

- Supervising Archaeologist managing the USAF facility survey on Molokai
- Supervising Archaeologist directing the Alpha USA survey on Molokai
- Supervising Archaeologist managing the Molokai Ranch survey on Molokai
- Supervising Archaeologist managing the Palauea survey on Maui
- Supervising Archaeologist managing the Maui Lani survey on Maui
- Supervising Archaeologist managing the Wailea survey on Maui
- Supervising Archaeologist directing the Kaunolu survey on Lana'i
- Supervising Archaeologist managing the Waianae survey on O'ahu

- Supervising Archaeologist participating in the H3 survey on O'ahu
- Supervising Archaeologist managing the Comprehensive Health survey on O'ahu
- Supervising Archaeologist managing the Water Well survey on O'ahu
- Supervising Archaeologist managing the Pohoiki survey on Hawai'i

CENTRAL AMERICA

1990 Indiana University Archaeological Field School, Belize

- Survey Director teaching settlement pattern survey and mapping techniques on Albion Island

1984 Proyecto Epigrafico PetexBatun, Guatemala

- Field assistant mapping the sites of Aguateca, Arroyo de Piedra, Dos Pilas, Itzan, and Tamarindito

1978-1996 Instituto Hondureno de Antropologia e Historia (IHAH), Honduras

- Supervisor of survey and mapping on seven projects in highland Honduras

South America

1980-1981 Programa de Antropologia para el Ecuador, Quito

- Field Director of three surveys in Esmeraldas, Manabi, and the upper Guayas Basin

NORTH AMERICA

2002-2004 PBS&J, Austin, Texas

- Project co-director of numerous long term survey projects in Texas

2004 Archaeologic USA, Vail, Colorado

-Crew member on a survey of BLM land along Johnson Creek near Blanding, Utah

1994-1995 Espey, Huston and Associates Inc. (EHA), Austin, Texas

-Principal Investigator and director of nine surveys in Texas and Louisiana

1987-1990 New World Research Inc., Ft. Walton Beach (NWR), Florida

-Field Director of nine surveys in New Jersey, Georgia, Alabama, Florida, and Pennsylvania

1983-1987 Public Archaeology Survey Team, Storrs, Connecticut

-Field Director and crew chief of ten surveys in Connecticut

1978-1985 Heartfield, Price and Greene, Inc. (HPG), Monroe, Louisiana

-Crew chief on eight surveys in New York, Louisiana, Oklahoma, Arkansas, and Missouri

1975-1978 Archeological Research Associates, Tulsa, Oklahoma

-Crew chief and crew member on six surveys in Texas and Oklahoma

1976-1977 Museum of the Great Plains, Lawton, Oklahoma

-Crew member on the survey of Ft. Sills U.S. Army Base in Oklahoma

1976-1977 Western Archaeological Center, National Park Service, Arizona

-Crew chief of two surveys in northern Arizona

1974-1976 Arizona State Museum, Tucson, Arizona

-Crew member on two surveys in southern Arizona

ARCHAEOLOGICAL DATA RECOVERY AND MONITORING

Archaeological data recovery investigations and monitoring generally follow the archaeological reconnaissance and inventory survey, gathering supplemental data in order to better evaluate the significance of previously recorded historic properties and sites. Data recovery investigations and monitoring are guided by specific research questions relative to individual sites under study. These questions may be addressed by a number of tasks including more detailed investigation of historic documents and archives, additional analyses of curated artifacts and environmental remains, further subsurface excavations or monitoring of construction, and the detailed documentation of standing architecture or relevant topography. Data recovery and monitoring results are then synthesized in a detailed and comprehensive technical report, with graphic documentation appropriate to the level of investigation.

Pacific Islands

2000-2002 AMEC Earth and Environmental (AMEC), Honolulu, Hawai'i

- Senior archaeologist directing the testing and monitoring of Kaneohe Marine Corps Base on O'ahu for US Marines
- Senior archaeologist directing the testing and monitoring of a Wai'anae Community Park on O'ahu

1991-1994 Bernice Pauahi Bishop Museum (BPBM), Honolulu, Hawai'i

- Supervising Archaeologist managing Diamond Head Coast Guard excavations on O'ahu
- Supervising Archaeologist managing Moku'ula excavations on Maui
- Supervising Archaeologist managing Glenn Frye residence excavations on Kaua'i
- Supervising Archaeologist synthesizing Ka'ahumanu excavations on O'ahu

1998-2000 International Archaeological Research Institute, Inc. (IARII), Territory of Guam

- Supervising Archaeologist directing the Tree Snake Pen testing in Guam for the US Fish and Wildlife Service
- Supervising Archaeologist directing data recovery at Site TN-1-691 on the island of Tinian, CNMI
- Supervising Archaeologist monitoring remediation in Hickham Air Force Base on O'ahu

North America

2002-2003 PBS&J, Austin, Texas

-Project director of a NRHP testing and data recovery project in central Texas

1987 W.A.P.O.R.A. Inc., Cincinnati, Ohio

-Field Director of excavations on the Woodward site in eastern Pennsylvania

1984-1986 Public Archaeology Program, Providence, Rhode Island

-Crew member on excavations of prehistoric sites and a historic period cemetery in Rhode Island

1983 Louis Berger & Associates Inc., East Orange, New Jersey

-Crew member on the excavation of the Abbott Farm complex of sites in New Jersey

1976-1977 National Park Service, Tucson, Arizona

-Crew chief of excavations at the Harmony Borax Works in Death Valley, California

1976 Arizona Highway Salvage Department, Tucson, Arizona

-Crew member on the excavation of a prehistoric site near Tumacacori, Arizona

1974-1976 Arizona State Museum, Tucson, Arizona

-Crew member on excavation of the Spanish Tubac Presidio in Arizona

Central America

1980 Proyecto Arqueologico El Mirador, Guatemala

-Supervisor of excavations and mapping on the Crossroads complex

1978-1996 Instituto Hondureno de Antropologia e Historia (IHAH), Honduras

-Director of excavation, analysis, and restoration at three sites in highland Honduras

1969-1970 Kaminaljuyu Archaeological Project, Guatemala

-Field and Lab Assistant on excavations at the Palangana mound group

SOUTH AMERICA

1980-1981 Programa de Antropologia para el Ecuador, Quito

-Field Director of excavations in Salango and Puerto Lopez, Manabi

1980 Cusichaca Project, Peru

-Supervisor of excavations at the pre-Inca hillfort of Huilla Raccay

EUROPE

1977 London Institute of Archaeo-Metallurgy, England

-Supervisor of excavations at the Roman mine of Rio Tinto in Huelva, southern Spain

1977 British Department for the Environment, England

-Crew member on excavations at the Roman shorefort settlement of Brancaster, England

1972 Nene Valley Research Committee, England

-Crew member on excavations at the Romano-British cemetery of Lynch Farm 4, England

1972-1977 Royal Ontario Museum, Toronto, Canada

-Supervisor of excavations and mapping at the Neolithic to Roman settlement of Fengate, England

TECHNICAL REPORTS

HAWAII

Dixon, Boyd

1991 *Preliminary Cultural Resource Interpretive Plan for Kaunolu, Lana`i.* BPBM, Honolulu.

1992 *A Revised Cultural Resource Interpretive Plan for the Proposed Archaeological Park at Kaunolu, Island of Lana`i, Hawai`i.* BPBM, Honolulu.

1992 *An Archaeological Reconnaissance of Five Board of Water Supply Wells on the Island of O`ahu, Hawai`i.* BPBM, Honolulu.

1994 National Register of Historic Places Registration Form for the Site of Kaunolu, Lana`i. US Department of the Interior, National Park Service, San Francisco / SHPD, Honolulu.

1996 *Archaeological Data Recovery Plan for Testing of Agricultural Terraces at the Sites of Kaunolu and Mamaki, Lana`i.* SHPD, Wailuku.

Dixon, Boyd, Jane Allen, and Mary Riford

2001 *Preservation Plan Luana Hills Country Club, Inc. Property, Maunawili Valley, Kailua Ahupua`a, Ko`olaupoko, O`ahu.* AMEC, Honolulu.

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1996 *Archaeological Survey Results from the Kahikinui Kuleana Homelands, Maui: Preliminary Observations and Subsurface Testing Strategy.* SHPD, Wailuku.

1996 *An Archaeological Inventory Survey Plan for Excavations at Santa Ynez Church and Parsonage, Kahikinui District, Maui, Hawai'i*. SHPD, Wailuku.

1997 *An Archaeological Inventory Survey of the Anahola G and G1 Subdivision, (TMK 4-8-12:6, 4-8-13:15-16, 4-8-18:26) Anahola Ahupua'a, Kawaihau District, Kaua'i*. SHPD, Wailuku.

2000 *Kahikinui Mauka: Archaeological Research in the Lowland Dry Forest of Leeward East Maui*. Four volumes, SHPD, Wailuku.

Dixon, Boyd, and Ross Cordy

1998 *Regional Research Questions for Kahikinui District Archaeology, Maui*. SHPD, Wailuku.

Dixon, Boyd, Dennis Gosser, and Tara Moorman

2001 *Archaeological Research Design for the Former He'eia Combat Training Area, Ko'olaupoko District, He'eia Ahupua'a, O'ahu Island, Hawai'i*. AMEC, Honolulu.

Dixon, Boyd, Dennis Gosser, Scott Williams, Laura Gilda, Constance O'Hare, and Jennifer Robins

2003 *A Cultural Resources Survey on Selected Lands in NAVMAG Lualualei Headquarters Branch, Island of O'ahu, Hawai'i*. AMEC, Honolulu.

Dixon, Boyd, and Paul Klieger

1992 *Moku'ula: A Proposal for Historical and Archaeological Research at the Royal Residence and Mausoleum, Loko Mokuhinia, Wainae Ahupua'a, Maui, Hawai'i*. BPBM, Honolulu.

Dixon, Boyd, Paul Klieger, Susan Lebo, Heidi Lennstrom, and Maurice Major

1994 *An Archaeological Inventory Survey of TMK 2-2-55:04, (State Site 50-80-14-4928), Nu'uaniu Ahupua'a, Kona District, O'ahu Island, Hawai'i*. BPBM, Honolulu.

Dixon, Boyd, and Maurice Major

1992 *Kapukahehu to Pu`uhakina: An Archaeological Inventory Survey of Southwest Moloka`i, Hawai`i*. BPBM, Honolulu.

Dixon, Boyd, Maurice Major, and Darin Lazzaro

1992 *Kaunolu: An Archaeological Inventory Survey and Mapping of State Site 50-40-98-25, Kaunolu and Kealiakapu Ahupua`a, Lana`i, Hawai`i*. BPBM, Honolulu.

Dixon, Boyd, Mary Riford, and Dennis Gosser

2001 *Final Report Archaeological Services in Support of Project P-267T Aircraft Apron Lighting of the Base Realignment and Closure (BRAC) Program Marine Corps Base Hawaii Kaneohe Bay, O`ahu, Hawai`i*. AMEC, Honolulu.

Dixon, Boyd, Scott Williams, and Dennis Gosser

2001 *Subsurface Testing Plan for Cultural Resources Survey on Selected Lands in NAVMAG Lualualei -Headquarters, O`ahu, Hawai`i*. AMEC, Honolulu.

Clark, Stephan, and Boyd Dixon

1992 *An Archaeological Data Recovery Plan for Selected Sites in Paeahu Ahupua`a, Wailea, Makawao District, Maui Island, Hawai`i*. BPBM, Honolulu.

1993 *An Archaeological Data Recovery Plan for Site 50-50-14-1028 in Palauea Ahupua`a, Wailea, Makawao District, Maui Island, Hawai`i*. BPBM, Honolulu.

Cleghorn, Paul, and Boyd Dixon

1991 *An Archaeological Data Recovery Plan for Selected Sites at Kaulana Bay, South Point, Ka`u, Hawai`i Island*. BPBM, Honolulu.

Cordy, Ross, and Boyd Dixon

1997 *Status Report 2, DHHL-DLNR, Kahikinui Homesteads Archaeological Inventory Survey: Site List, Significance Evaluations, and Mitigation Recommendations*. SHPD, Wailuku.

Dang, Charmian, Stephan Clark, and Boyd Dixon

1993 *Archaeological Monitoring of Wailea Resort's Orange and Gold Golf Course Phase-1, Wailea, Maui, State of Hawai'i.* BPBM, Honolulu.

1993 *Archaeological Monitoring of Wailea Resort's Orange and Gold Golf Course Phase-2, Wailea, Maui, State of Hawai'i.* BPBM, Honolulu.

Flood, Krista, and Boyd Dixon

1993 *An Archaeological Inventory Survey of State Site 50-80-14-2464, Nu'uaniu Ahupua'a, Kona District, O'ahu, Hawai'i.* BPBM, Honolulu.

1994 *An Archaeological Reconnaissance of the Wai'anae Comprehensive Health Center, Wai'anae District, Lualualei Ahupua'a, Island of O'ahu.* BPBM, Honolulu.

Flood, Krista, Paul Klieger, Susan Lebo, Boyd Dixon, Stephan Clark, and Scot Parry

1994 *An Archaeological Inventory Survey and Mitigation Plan of a Seven Acre Parcel (TMK: 8-5-28:POR.42) in Wai'anae Kai Ahupua'a, Wai'anae District, O'ahu Island, Hawai'i.* BPBM, Honolulu.

Glidden, Catherine, Maurice Major, and Boyd Dixon

1992 *Results of Subsurface Data Recovery in Selected Areas of Paradise Cove, Hono'uli'uli, 'Ewa, O'ahu.* BPBM, Honolulu.

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1993 *An Archaeological Reconnaissance of a Proposed 20-Acre Commercial Project, Honolulu, 'Ewa, O'ahu Island (TMK 9-1-69: Por. 5).* BPBM, Honolulu.

Gosser, Dennis, Stephan Clark, and Boyd Dixon

1993 *Na Lawai'a O 'Ao'Ao Kona O Ka Moku: Excavations at the Southern Acreage and Lot 15, Wailea, Maui.* BPBM, Honolulu.

2001 *Revised Testing and Data Recovery Plan Archaeological Services in Support of Project P-267T Aircraft Apron Lighting of the Base Realignment and Closure (BRAC) Program Marine Corps Base Hawaii Kaneohe Bay, Island of O`ahu.* AMEC, Honolulu.

Gosser, Dennis, Stephan Clark, Boyd Dixon, Paul Klieger, Gwen Hurst, Lisa Rotunno-Hazuka, and Susan Lebo

1994 *Data Recovery Excavations in Makena Resort's Parcels III and IV, Makena Maui.* BPBM, Honolulu.

Gosser, Dennis, Mark Roe, Stephan Clark, and Boyd Dixon

1995 *An Archaeological Inventory Survey of Parcel MF-11, Wailea, Maui.* BPBM, Honolulu.

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1994 *Moku'ula: History and Archaeological Excavations at the Private Palace of King Kamehameha III in Lahaina, Maui.* BPBM, Honolulu.

Landrum, James, and Boyd Dixon

1992 *Emergency Mitigation of Archaeological Resources at the River-Nimitz Redevelopment Project, State Site 50-80-14-2246, Nu`uanu Ahupua`a, Kona District, Island of O`ahu, Hawai`i.* BPBM, Honolulu.

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1994 *Archaeological Data Recovery of the Harbor Court (Ka`ahumanu Parking Structure) Project, Site 50-80-14-2456, Nu`uanu Ahupua`a, Kona District, Island of O`ahu, Hawai`i.* BPBM, Honolulu.

Major, Maurice, and Boyd Dixon

1992 *An Archaeological Inventory Survey of the Pohoiki #2 Transmission Line Corridor, Puna District, Island of Hawai'i.* BPBM, Honolulu.

1994 *An Archaeological Reconnaissance of Halena Camp, Kaluako'i Ahupua'a, Island of Moloka'i, Hawai'i.* BPBM, Honolulu.

1995 *Final Technical Report: Archaeological Survey and Evaluation, USAF Receiver Station, Ho'olehua, Moloka'i, Maui County, Hawai'i.* BPBM, Honolulu.

Major, Maurice, Stephan Clark, and Boyd Dixon

1995 *Archaeological Data Recovery Excavations at Site 50-50-14-1028, Palauea, Maui, Hawai'i.* BPBM, Honolulu.

Major, Maurice, Fred Stone, and Boyd Dixon

1992 *A Burial Report Concerning The Pohoiki No. 2 Transmission Line Corridor, Puna District, Island of Hawai'i.* BPBM, Honolulu.

Mullins, Suzanne, Krista Flood, and Boyd Dixon

1993 *Archaeological Monitoring of Sewage System Construction for the Diamond Head Lighthouse Property, State Site 50-80-14-1338, Palolo Ahupua'a, Kona District, Island of O'ahu, Hawai'i.* BPBM, Honolulu.

Rotunno-Hazuka, Lisa, Lonnie Somer, Stephan Clark, and Boyd Dixon

1994 *Archaeological Testing of Four Sites on Maui Lani Property in Wailuku Ahupua'a, Wailuku District, Island of Maui, Hawai'i.* BPBM, Honolulu.

Rotunno-Hazuka, Lisa, Lonnie Somer, Krista Flood, Darin Lazzaro, Stephan Clark, and Boyd Dixon

1994 *Historical Research for the Proposed Maui Lani Project and Test Excavations at Site 50-50-04-*

2797, Wailuku, Maui. BPBM, Honolulu.

Soldo, David, and Boyd Dixon

1994 *Archaeological Monitoring During Construction of a Single Family Residence (TMK 5-9-02:36), Ha`ena Ahupua`a, Island of Kaua`i, Hawai`i*. BPBM, Honolulu.

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Dixon, Boyd

2000 *Archaeological Survey and Testing of a Proposed Brown Tree Snake Pen, Guam National Wildlife Refuge, Ritidian Point, Territory of Guam, Mariana Islands*. IARII, Honolulu.

2000 *Archaeological Data Recovery Plan for Site TN-1-691 (N-15), West Tinian Airport Improvement Area, Commonwealth of the Northern Mariana Islands*. IARII, Honolulu.

2001 *Archaeological Survey of Rota Highway 100, Island of Rota, Commonwealth of the Northern Mariana Islands*. IARII, Honolulu.

Dixon, Boyd, J. Stephan Athens, David Welch, Jerome Ward, Tina Mangieri, and Timothy Reith

1999 *Archaeological Inventory Survey of the Sasa Valley and Tenjo Vista Fuel Tank Farms, Piti District, Territory of Guam, Mariana Islands*. IARII, Honolulu.

Dixon, Boyd, Dennis Gosser, Jane Allen, Richard Nees, and Laura Gilda

2003 *Final Report Phase I and II Cultural Resources Survey Naval Ordnance Annex and Waterfront Annex, Territory of Guam*. AMEC, Honolulu.

Dixon, Boyd, David Welch, and Coral Magnuson

2001 *Archaeological Data Recovery at Prehistoric Site TN-1-691, West Tinian Airport Improvement Area, Commonwealth of the Northern Mariana Islands*. IARII, Honolulu.

Dixon, Boyd, and David Welch

1999 Research Design for Archaeological Survey in Advance of West Tinian Airport Improvements, Commonwealth of the Northern Mariana Islands. IARII, Honolulu.

1999 Research Design for Archaeological Survey of a Portion of Highway 100, Island of Rota, Commonwealth of the Northern Mariana Islands. IARII, Honolulu.

2000 Archaeological Data Recovery Plan for Selected Prehistoric Sites on Rota Highway 100, Commonwealth of the Northern Mariana Islands. IARII, Honolulu.

2001 Archaeological Survey of the West Tinian Airport Improvement Area, Commonwealth of the Northern Mariana Islands. IARII, Honolulu.

Dixon, Boyd, David Welch, Tom Dye, and Tina Mangieri

2000 Phase II Archaeological Survey of the Military Lease Area (Former VOA Areas B and C), Island of Tinian, Commonwealth of the Northern Mariana Islands. IARII, Honolulu.

Allen, Jane, Boyd Dixon, Karen Aronson, Laura Gilda, Dennis Gosser, Tara Moorman, Constance O'Hare, Mary Riford, and Jim Toenges

2001 Final Report Archaeological Survey and Excavations at the Naval Ordnance Annex, Territory of Guam. AMEC, Honolulu.

Allen, Jane, Dennis Gosser, Richard Nees, and Boyd Dixon

2002 Final Report Cultural Resources Survey of the Military Leaseback Area, Tinian, Commonwealth of the Northern Mariana Islands. Volume 5: Research Questions, Site Significance Evaluations, and Recommendations. AMEC, Honolulu.

Gosser, Dennis, Boyd Dixon, Laura Gilda, and Tony Torres

2001 Research Design Phase I and II Cultural Resources Survey Naval Ordnance Annex and Waterfront Annex, Territory of Guam. AMEC, Honolulu.

Hunter-Anderson, Rosalind, Boyd Dixon, and Tina Mangieri

2000 Draft Final Report of A Cultural Resources Survey of Five Navy Guam Land Use Parcels, Territory of Guam. MARS and IARII, Honolulu.

Palau

DIXON, BOYD

1993 *Proposed Archaeological Survey and Data Recovery for Babeldaob Road Corridor, Republic of Palau*. Anthropology Dept, BPBM, Honolulu.

Honduras

Dixon, Boyd

1994 *Preliminary Technical Report - El Gigante Analysis*. IHAH, Tegucigalpa.

1995 *Informe Tecnico - Reconocimiento Arqueologico del Rio Sico Paulaya, Biosfera Rio Platano, Departamento de Colon*. IHAH, Tegucigalpa.

1995 *Informe Tecnico - Reconocimiento Arqueologico del Rio Talgua, Departamento de Olancha*. IHAH, Tegucigalpa.

1996 *An Archaeological Interpretive Plan: Parque Arqueologico / Ecologico Los Naranjos, Departamento de Cortez, Honduras*. Asociacion Copan and IHAH, Tegucigalpa.

Dixon, Boyd, Dennis Gosser, Michelle Dippel, and Geraldina Tercero

1995 *Preliminary Technical Report - Proyecto Arqueologico Yarumela - 1995 Laboratory Season*. IHAH, Tegucigalpa.

Dixon, Boyd and L.R.V. Joesink-Mandeville

1989 *Archaeological Investigations at Yarumela, Honduras: The 1989 Field Season*. Museum of Anthropology, California State University, Fullerton.

Joesink-Mandeville, L.R.V., and Boyd Dixon

1988 *Archaeological Investigations at Yarumela: The 1988 Field Season*. Museum of Anthropology, California State University, Fullerton.

Joesink-Mandeville, L.R.V., Glenn Greene, and Boyd Dixon

1990 *Archaeological Investigations at Yarumela: The 1990 Field Season*. Museum of Anthropology, California State University, Fullerton.

ECUADOR

Dixon, Boyd

1980 *Informe Preliminar--Reconocimiento Arqueologico de Balao, Esmeraldas*. Programa de Antropologia para el Ecuador, Quito.

NEW YORK

Dixon, Boyd

1986 *Archaeological Testing at the IBM Poughkeepsie North 100, Poughkeepsie, Dutchess County, New York*. HPG, Monroe, LA.

Heartfield, Lorraine, and Boyd Dixon

1985 *A Cultural Resources Survey and Assessment of the IBM Poughkeepsie North 100, Poughkeepsie, Dutchess County, New York*. HPG, Monroe, LA.

Texas

Dixon, Boyd

1994 *A Cultural Resource Survey of the Whitfield Well #9, Panola County, Texas*. EHA, Austin, TX.

1995 *An Archaeological Survey of the Texas Windpower Project, Culberson County, Texas.* EHA, Austin, TX.

1995 *An Archaeological Survey of a 28.5 Mile Long Transmission Line, Texas Windpower Project, Culberson County, Texas.* EHA, Austin, TX.

Dixon, Boyd, and Michael Nash

1994 *A Class III Cultural Resource Survey of Texaco-J.W. Minton Est. A-466 Well No. 1-H and ARCO Fee A-418 Well No. 1-H, Sabine County, Texas.* EHA, Austin, TX.

Dixon, Boyd, Stephan Kotter, Elizabeth Skokan, Kathryn Reese-Taylor, Michael Nash, and Edwin Barnhart

1996 *Data Recovery Excavations at Sites 41TT372 and 41TT550 in the Tankersley Creek Watershed, Monticello B-2 Surface Mine, Titus County, Texas.* EHA, Austin, TX.

Dixon, Boyd, Elizabeth Skokan, Robert Rogers, Steve Kotter, Michael Nash, and Edwin Barnhart

1995 *Archaeological Testing of Site 41TT672 and Geomorphological Testing of Tankersley and Dragoo Creek Drainages, Titus County, Texas.* EHA, Austin, TX.

Dixon, Boyd, Robert Rogers, and Michael Nash

2002 *Interim Report of National Register of Historic Places Eligibility Testing at Site 41WM1010: Segment A, Proposed State Highway 130, Williamson County, Texas.* PBSJ, Austin, TX.

Dixon, Boyd, Robert Rogers, and Michael Nash

2003 *Interim Report Data Recovery Excavations and Analysis of Site 41WM1010: Segment A, Proposed State Highway 130, Williamson County, Texas.* PBSJ, Austin, TX.

Dixon, Boyd, Robert Rogers, Michael Nash, Chelsea McMurtrie, and Kelley Russell

2003 *Final Report Data Recovery Excavations and Analysis of Site 41WM1010: Segment A, Proposed State Highway 130, Williamson County, Texas.* PBSJ, Austin, TX.

Rogers, Robert, and Boyd Dixon

2002 Research Design for Data Recovery of Site 41WM1010: Segment A, Proposed State Highway 130, Williamson County, Texas. PBSJ, Austin, TX.

Hales, Julie, Boyd Dixon, and Sally Victor

2003 Interim Report of Cultural Resources Survey: Segment B-2, Proposed State Highway 130, Williamson County, Texas. PBSJ, Austin, TX.

Hales, Julie, and Boyd Dixon

2003 Interim Report of Cultural Resources Survey: Segment C-2, Proposed State Highway 130, Williamson County, Texas. PBSJ, Austin, TX.

Taylor, Rick, Boyd Dixon, Michael Nash, and Eugene Foster

1995 A Cultural Resources Survey of the Cedar Valley to Marshall Ford 138-kV Transmission Line Rebuild Project, Travis County, Texas. EHA, Austin, TX.

Georgia

Meyer, Joe, Boyd Dixon, James Mathews and Newell Wright

1989 A Cultural Resources Survey of a Proposed 12.05 Mile Pipeline Corridor in Elbert, Hart, and Madison Counties, Georgia (FERC Docket # CP 88-760-000). NWR #186. Ft. Walton Beach, FL.

Florida

Mikell, Gregory, and Boyd Dixon

1988 An Archaeological Investigation of the Escambia River Wetlands: GFS Seismic Survey. DNR #G-108-88, Santa Rosa and Escambia County, Florida. NWR #172, Ft. Walton Beach, FL.

Louisiana

Rogers, Robert, Ed Baxter, Maria Cruse, Boyd Dixon, Eugene Foster, and Michael Nash
1996 *Cultural Resources Investigations at the Dolet Hills Lignite Mine, Desoto Parish, Louisiana. 1998-2002 Environmental/Operations Narrative Area.* EHA, Austin, TX.

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HAWAII

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1998 Hawaiian Archaeology in the 1990s. *Easter Island in Pacific Context: South Seas Symposium. Proceedings of the Fourth International Conference on Easter Island Research.* Session 6:223, Easter Island Foundation and Bearsville/Cloud Mountain Press, Los Osos.

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2002 Settlement Patterns and Subsistence Strategies in Kahikinui, Maui. *Hawaiian Archaeology* 8:13-32, Society for Hawaiian Archaeology, Honolulu.

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1994 Lithic Tool Production and Dryland Planting Adaptations to Regional Agricultural Intensification: Preliminary Evidence from Leeward Moloka`i, Hawai`i. *Bishop Museum Occasional Papers* 39:1-19, Bishop Museum Press, Honolulu.

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MARIANA ISLANDS

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Dixon, Boyd

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2003 Arqueologia y Ecoturismo en el Sitio de Los Naranjos, Cortez, Honduras. *Yaxkin* XX:55-76, Tegucigalpa.

Beaudry-Corbett, M., J. Brady, B. Dixon, P. Gomez, G. Hasemann, and D. Reents-Budet

1997 North Central Honduras: A Maya Landscape? In: A. Cordy-Collins and G. Johnson, eds., *Proceedings of the 1995 and 1996 Latin American Symposia - Part II. Landscapes and Mindscapes of the Ancient Maya*, San Diego Museum of Man, Vol. 34:49-66, San Diego.

Hasemann, George, Boyd Dixon, and John Yonk

1982 El Rescate Arqueologico en la Zona de Embalse de El Cajon: Recorrido General y Regional, 1980-81. *Yaxkin* 5(1):22-36, Tegucigalpa.

Belize

Pyburn, Anne, Boyd Dixon, Patty Cook, and Anna McNair

1998 The Albion Island Settlement Pattern Project: Domination and Resistance in Early Classic Northern Belize. *Journal of Field Archaeology* 25:37-62, Boston.

Guatemala

Dixon, Boyd

1985 Mapping Maya Civilizations. *Professional Surveyor* 5(2):6-14, Falls Church.

Dixon, Boyd, Dennis Jones, and Bruce Dahlin

1994 Excavaciones en el Complejo Los Cruces, El Mirador, Guatemala. *Mayab* 9:18-30, Madrid.

ECUADOR

Dixon, Boyd

1982 Current Research, Ecuador. *Willay* 10:1, Princeton.

1982 Current Research, Ecuador. *Gaceta Arqueologica Andina* 1(3):10, Lima.

RHODE ISLAND

Dixon, Boyd

1985 Research Abstract. *Conference on New England Archaeology* 5(2):21, Providence.

1987 Surface Analysis of the Ochee Spring Steatite Quarry in Johnston, Rhode Island. *Man in the Northeast* 34:85-98, Albany.

Texas

Dixon, Boyd

1995 Archaeological Survey in the Delaware Mountains. *CRM News and Views* 7(2):11-12, Austin.

1996 Prehistoric Adaptation and Resource Exploitation in the Delaware Mountains, Culberson County, Texas. *Bulletin of the Texas Archaeological Society* 67:115-132, Austin.

COLLOQUIA AND PROFESSIONAL PAPERS

HAWAII

Dixon, Boyd

1992 *A Cultural Resource Interpretive Plan at Kaunolu, Lana'i*. 5th Annual Hawaiian Archaeology Conference, Kaua'i.

1993 *Heiau Construction and Political Hegemony at Kaunolu, Lana'i*. Current Archaeological Research on Moloka'i (session chair), 6th Annual Hawaiian Archaeology Conference, Moloka'i.

1995 *Social Status Privilege and Continuity in the Post-Contact Period at the Site of Kaunolu, Lana'i, Hawai'i*. Islands in the Sun: The Colonial World in the Pacific, Society for Historical Archaeology, Washington D C.

1995 *Elite Exchange and Mana in Post-Contact Hawai'i*. Texas Archaeological Research Laboratory, University of Texas, Austin.

1995 *Organizational Changes in Basalt Adze Manufacturing Strategies on the West End of Moloka'i*. 8th Annual Hawaiian Archaeology Conference, O'ahu.

1997 *A Newly Discovered Holua Slide in Kahikinui, Maui, and Its Context*. Hawaiian Archaeology in the 1990s (session chair), South Seas Symposium: Easter Island in Pacific Context, Albuquerque.

1998 *Kahikinui: Archaeological Survey in East Maui*. Bailey House Museum and Maui Historical Society, Maui.

2002 *Traditional Hawaiian Men's Houses and their Communities in Lualualei, O'ahu*. Archaeology of O'ahu, 15th Annual Hawaiian Archaeology Conference, O'ahu.

Dixon, Boyd, Patty J. Conte, Valerie Nagahara, and W. Koa Hodgins

1996 *A Kahikinui District-Wide Research Design and Its Implications for an Upland Forest Periphery Survey of Kipapa and Nakaohu Ahupua`a*. Current Archaeology on Maui, 9th Annual Hawaiian Archaeology Conference, Maui.

1997 *Kahikinui Mauka: Preliminary Results from Survey and Testing in the Upland Forest Periphery*.

Kahikinui, Maui (session co-chair), 10th Annual Hawaiian Archaeology Conference, Kaua`i.

1998 *Pre-Contact Adaptation to Upland Forested Kahikinui, Maui*. Current Hawaiian Research, 11th Annual Hawaiian Archaeology Conference, Kona.

2001 *Defining Risk in the Traditional Settlement of Kahikinui Mauka, Maui*. The Archaeology of Kahikinui, 14th Annual Hawaiian Archaeology Conference, Maui.

Dixon, Boyd, and Thomas Stone

1997 *Holua Slide in Kahikinui*. Bailey House Museum and Maui Historical Society, Maui.

Johnson, Kevin, Boyd Dixon, and Maurice Major

1993 *Geochemical Sourcing of Artifacts from Southwest Moloka`i*. Current Archaeological Research on Moloka`i (session chair), 6th Annual Hawaiian Archaeology Conference, Moloka`i.

Sweeney, Maria, Melinda Sue Allen, and Boyd Dixon

1994 *Kaunolu's Place in the Prehistory of Lana`i*. Current Hawaiian Research (conference organizer), 7th Annual Hawaiian Archaeology Conference, Hilo.

Mariana Islands

Dixon, Boyd

1999 *Introductory remarks*. From the Holocene to Hell in the Western Pacific (session chair). 12th Annual Hawaiian Archaeology Conference, Kapi`olani Community College, O`ahu.

1999 *WWII Japanese Shellfishing on Guam and its Prehistoric Antecedents*. Society for Hawaiian Archaeology, Windward Community College, O`ahu.

2000 *Prehistoric Colonization of Western Micronesia: New Evidence from the Mariana Islands and Palau*. Department of Archaeology and Anthropology, Australian National University, Canberra.

2000 *Latte Period "Backyard" Archaeology on the Island of Tinian, CNMI*. Prehistory of the Marianas: From the Pit, to the Page, to the Public, Guam Historic Preservation Office, Tumon.

2001 *Pre-WWII Rural Japanese Plantation Settlement Patterns on the Island of Tinian, CNMI*. Society for American Archaeology (session chair), 34th Annual Meeting, New Orleans.

Welch, David, Boyd Dixon, and Tina Mangieri

2001 *Excavations at Ague Cove, Guam*. Archaeology of the Western Pacific, 14th Annual Hawaiian Archaeology Conference, Maui.

HONDURAS

Dixon, Boyd

1986 *A Defensive Wall System at the Honduran Site of Tenampua*. Department of Anthropology, University of Connecticut, Storrs.

1987 *Settlement Patterns: A Survey in Central Honduras*. Department of Anthropology, California State University, Fullerton.

1987 *Cultural Development in the Comayagua Valley, Honduras*. Department of Anthropology, Cornell University, Ithaca.

1987 *Prehistoric Settlement Patterns in the Comayagua Valley, Honduras*. Department of Anthropology, SUNY, Binghamton.

1987 *Desarollo Cultural Prehistorico en el Valle Comayagua*. IV Seminario de Arqueologia Hondurena, La Ceiba.

1989 *Excavaciones Preliminares en Yarumela, Honduras*. V Seminario de Arqueologia Hondurena, Copan.

1994 *Factional Competition and The Rise of Complex Society at the Site of Yarumela in Central Honduras*. Department of Anthropology, University of Hawai'i, Manoa.

1995 *Social Status Competition and Cultural Evolution at the Site of Yarumela, Honduras*. Department of Anthropology, Northern Illinois University, DeKalb.

1999 *Planes de Sitios Formativos y Patrones de Asentamiento en Honduras: Lo Que Nos Podrian Ensenar de la Competencia del Estrato Social*. VII Seminario de Arqueologia Hondurena, Tegucigalpa.

2000 *Formative Period Site Plans, Settlement Patterns, and Social Status Competition in Honduras*. Society for American Archaeology (session co-chair), 33rd Annual Meeting, Philadelphia.

Beaudry-Corbett, Marilyn, James Brady, George Hasemann, Pastor Gomez, and Boyd Dixon

1997 *Current Research in the Talgua Cave Area, Catacamas, Honduras*. Archaeological Institute of America Annual Meetings, San Diego.



MICHAEL DESILETS
Project Director/Senior Archaeologist

SUMMARY OF QUALIFICATIONS

- Skilled planner and director of archaeological projects including Phase I, II, and III field investigations, laboratory processing, data analysis, and report production.
- Proven ability to author and produce high quality archaeological reports that exceed federal and state compliance standards.
- Extensive experience in the application of the National Historic Preservation Act's Section 106 process to archaeological sites, historic structures, and historic districts.
- Skilled in the application of GIS and GPS technology to archaeological sites and landscapes.
- Expert in quantitative analysis of lithic, ceramic, and marine invertebrate assemblages.
- HAZWOPER Certified.
- **Software proficiencies:** Microsoft Word, Excel, Access, and PowerPoint; ArcView 3.2; Trimble Pathfinder Office; Adobe Photoshop and Illustrator.

EDUCATION

WESTERN WASHINGTON UNIVERSITY, Bellingham, Washington, 98225
Major in Anthropology, concentration in Archaeology and statistical methods
MA degree awarded 1995

UNIVERSITY OF VERMONT, Burlington, Vermont, 05405
Major in Anthropology and History, minor in Art History
BA degree awarded 1990

Professional Experience

Archaeological Technician, May 2003 - November 2003

University of Vermont Consulting Archaeology Program

112 University Heights, Burlington, Vermont 05405

John Crock, Ph.D. (Program Director) (802) 656-4310

Performed intensive Phase I archaeological survey, Phase II testing, and Phase III data recovery at pre-contact sites in Vermont. Laid in sampling grids and transects, conducted systematic shovel testing, and performed large-scale areal excavation and feature sampling.

Project Manager, October 2002 - March 2003, November 2003

Garcia and Associates

146 Hekili St., Suite 204, Kailua, Hawaii 96734

Alice Roberts (Pacific Regional Manager) (808) 262-1387

Organized and implemented large-scale Phase I archaeological survey efforts at military training areas throughout the state of Hawaii. Successfully managed field personnel and materials to meet project goals within allotted budgets. Project duties included site identification, determination of cultural affiliation, significance assessments, mapping, systematic sampling of cultural deposits, soil stratigraphy interpretation and technical description, GPS data collection, and report writing. Projects required GIS data manipulation and analysis in preparation for reports as well as for planning successive phases of on-going projects.

Associate Archaeologist, October 2001 - October 2002

T.S. Dye & Colleagues, Archaeologists Inc.

735 Bishop Street, Suite 315, Honolulu, Hawaii 96813

Thomas S. Dye, Ph.D. (Principal Investigator) (808) 529-0866

Managed multiple concurrent archaeology projects from initial background research, through fieldwork, to final report writing and production. Project goals centered on identifying, recording, and determining National Register of Historic Places eligibility for archaeological sites. Worked primarily in collaboration with environmental professionals to mitigate adverse effects of remediation projects on archaeological sites within various federal facilities. Researched and developed archaeological monitoring plans for complex remediation efforts in archaeologically sensitive areas. Authored numerous technical reports and also performed specialized quantitative analyses of lithic and marine invertebrate assemblages.

Supervisory Archaeologist/Lithic Analyst, May 1996 - July 2001

International Archaeological Research Institute, Inc.

2081 Young Street, Honolulu, Hawaii 96826-2231

Stephen J. Athens, Ph.D. (Principal Investigator) (808) 946-2548

Assisted governmental agencies and private sector clients in meeting federal and state compliance standards for historic preservation. Supervised and directed all phases of archaeological field projects including systematic survey, test excavation, mapping, and intensive data recovery. Applied National Register of Historic Places evaluation criteria to archaeological and historic properties throughout Hawaii and the western Pacific. Responsible for quantitative analyses of lithic, ceramic, and marine invertebrate assemblages from the western Pacific and Hawaii. Authored numerous technical reports and specialized artifact analyses.

Archaeological Technician, April 1995 – May 1995

Northwest Archaeological Associates

5416½ 20th Ave. NW, Seattle, Washington 98107

Christian Miss (Principal Investigator) (206) 781-1909

Conducted test excavation for projects in Idaho and Washington. Also performed Phase I inventory survey of a fiber optic corridor extending from eastern Washington into northeastern Oregon. Mapped and recorded historic and prehistoric sites along corridor.

Archaeological Technician, June 1993 – August 1993

United States Forest Service (Willamette National Forest)

McKenzie Ranger District, McKenzie Bridge, Oregon 97413

Eric O. Bergland (Zone Archaeologist) (503) 822-3381

Performed intensive Phase I archaeological survey in Three Sisters Wilderness Area, Oregon. Conducted Phase II test excavation at previously identified sites within proposed timber sale parcels within the Willamette National Forest.

TECHNICAL REPORTS

- 2002 *Reconstruction of a Traditional Hawaiian Enclosure, Manini'owali, North Kona, Hawaii.* T.S. Dye & Colleagues, Archaeologists Inc., Honolulu.
- Reconnaissance Survey of an Eight Acre Parcel in Pu'u Anahulu, Kona, Hawaii.* T.S. Dye & Colleagues, Archaeologists Inc., Honolulu.
- Archaeological Monitoring of Hazardous Waste Removal at Mamala Bay Golf Course, Hickam Air Force Base, O'ahu, Hawai'i.* T.S. Dye & Colleagues, Archaeologists Inc., Honolulu.
- Archaeological Monitoring Plan for Military Family Housing Replacement at Hickam Air Force Base, O'ahu, Hawai'i.* T.S. Dye & Colleagues, Archaeologists Inc., Honolulu. Prepared for Parsons Engineering Science, Pasadena.
- 2001 *Archaeological Monitoring Plan for Environmental Remediation Projects at Hickam Air Force Base, O'ahu, Hawai'i.* T.S. Dye & Colleagues, Archaeologists Inc., Honolulu. Prepared for URS, Honolulu.
- 2000 *Archaeological Monitoring and Sampling, Interim Removal Action, Five Underground Storage Sites-OU7, Bellows Air Force Station, Waimanalo, Ko'olaupoko District, O'ahu, Hawai'i.* International Archaeological Research Institute, Inc., Honolulu. Prepared for the U.S. Army Corps of Engineers, Fort Shafter, Hawai'i.
- Archaeological Monitoring for Underground Storage Tank Removal on ST11 Sites at Bellows Air Force Station, Hawai'i.* International Archaeological Research Institute, Inc., Honolulu.
- 1999 *Archaeological Monitoring During Environmental Projects at Hickam Air Force Base, O'ahu, Hawai'i.* International Archaeological Research Institute, Inc., Honolulu.
- Archaeological Data Recovery for the Compact Road, Babeldaob Island, Republic of Palau, Volume II.* International Archaeological Research Institute, Inc., Honolulu (co-author). Prepared for the U.S. Army Corps of Engineers, Fort Shafter, Hawai'i.

- Archaeological Monitoring and Data Recovery for Palau National Communication Corporation Underground Cable Installation.* International Archaeological Research Institute, Inc., Honolulu, HI (co-author). Report prepared for Palau National Communication Corporation, Airai, Republic of Palau.
- 1998 *Archaeological Monitoring and Sampling During Bellows OU7 UST Removal Project Interim Remedial Action, Phase I, Bellows Air Force Station, Waimanalo, Ko'olaupoko, O'ahu.* International Archaeological Research Institute, Inc., Honolulu (co-author). Prepared for the U.S. Army Corps of Engineers, Fort Shafter, Hawai'i.
- Archaeological Data Recovery for the Compact Road, Babeldaob Island, Republic of Palau, Volume I.* International Archaeological Research Institute, Inc., Honolulu, HI (contributions). Prepared for the U.S. Army Corps of Engineers, Fort Shafter, Hawai'i.
- 1995 *Lithic Reduction Strategies and the Bipolar Technique at the Cherry Point Site.* MA Thesis, Anthropology Department, Western Washington University, Bellingham, WA.
- 1995 *An Archaeological Resource Investigation of the Proposed Tewalt Quarry Property, Clear Lake, Skagit County, WA.* Alfred Reid Archaeological Consultant, Bellingham, Washington (contributions).
- 1993 *Three Sisters Wilderness Campsite Revegetation Survey Report.* United States Forest Service, McKenzie Ranger District, Willamette National Forest, OR (co-author).
-

PRESENTATIONS

- 1999 Archaeology in the Hawaiian Commons. Paper presented at the 12th annual Society for Hawaiian Archaeology Conference, Honolulu, Hawaii.
- 1994 Bipolar Reduction at the Cherry Point Site
Paper presented at the 47th annual Northwest Anthropological Conference,
Bellingham, Washington.
-

PROFESSIONAL MEMBERSHIPS

Sigma Xi (The Scientific Research Society)
Society for American Archaeology
Society for Hawaiian Archaeology



MARK WILLIS (BLANTON AND ASSOCIATES, Inc.)

GIS/Remote Sensing

EDUCATION

- 1990-1992 Graduated *magna cum laude* with a BA in Anthropology from Texas Tech University, Lubbock Texas.
- 1988-1990 Amarillo Community College.
- 1988 Graduated with honors from Amarillo High School, Amarillo Texas.

EMPLOYMENT HISTORY

Blanton and Associates, Inc. (Austin, Texas)

Field Director, GIS Analyst, GPS mapping, and report preparation, 2002 to present.

Survey, mapping, and write-up and editing of archaeological reports.

John A. Peterson and Associates, Inc. (El Paso, Texas)

Director, research analyst, report preparation, and remote sensing specialist, 1999 to 2003.

Ground penetrating radar (GPR) investigations, total station operation, excavation, artifact analysis, computer aided mapping, teaching of field methods, write-up and editing of archaeological reports.

University of San Carlos (Cebu City, Cebu, Philippines)

Ground penetrating radar (GPR) investigations, teaching of excavation and survey methods, geographic information systems, and remote sensing, May, 2001 (Research is on going.)

Archaeological investigations of Spanish colonization of the Philippine islands.

University of Texas at El Paso (El Paso, Texas)

Field Director, Lab Director, Research Analyst, and Remote Sensing Specialist, January 1, 1995 to present

Ground penetrating radar (GPR) investigations, total station operation, excavation, artifact analysis, computer aided mapping, teaching of field methods, write-up and editing of archaeological reports.

University of Texas at Austin (Austin, Texas)

Remote Sensing Specialist, June 1999 and January/February 2000 (Contract Basis)

Ground penetrating radar (GPR) investigations, Proton Magnetometer survey, Total station operation, excavation, artifact analysis, computer aided mapping, write-up and editing of archaeological reports. Work conducted for National Geographic on Inca sites in Ecuador.

College of Lake County (Chicago, Illinois)

Archaeometry Director for the Mayflower Project in Belize, Central America, 1997

Total station operation, excavation, artifact analysis, computer aided mapping, teaching of field methods, and creation of three dimensional computer models of sites.

Archaeological Research, Inc. (El Paso, Texas)

Field Archaeologist, Computer Lab Director and Research Analyst, 7 years total (Contract Basis)

Ground penetrating radar (GPR) investigations, total station operation, excavation, artifact analysis, computer aided mapping, write-up and editing of archaeological reports.

New World Consultants, Inc. (Albuquerque, New Mexico)

Field Archaeologist, Computer Lab Director and Research Analyst, 5 years total (Contract Basis)

Cultural resource reconnaissance and project synthesis in Arizona, California, and New Mexico. Recognition and analysis of prehistoric and historic sites, computer aided mapping, write-up and editing of archaeological reports.

SKILLS

Archaeological Skills:

Remote sensing, excavation, ground penetrating radar, magnetometer operations, mapping, artifact analysis, general cultural resource management, management of complex projects and report write-up.

Technological Skills:

Software: Expert in the use of ArcView, ArcGIS, ENVI, ER Mapper, 3D Studio Max, Maya, Corel Draw, Illustrator, Photoshop, Surfer, GRASS, AutoCAD, and many other software packages.

Hardware: Expert in the use of Ground Penetrating Radar, Proton Magnetometer, EM31, Global Positioning Systems, and Total use of older mapping equipment such as optical transits and alidades.

PUBLICATIONS AND REPORTS

Archaeological Survey of the Proposed Brazos Wind Ranch and Transmission Line, Borden and Scurry Counties, Texas, by Anthony, Dana, Mark Willis, Rick Phillips, and David O. Brown (November 17, 2003)

Resler Canyon Archaeological Survey, El Paso County, Texas, by Mark D. Willis and John A. Peterson (July 3, 2003)

City of El Paso CBD III Street Reconstruction Project: Pre-Construction Archeological Resources Assessment and Recommendations by Stephen K. Mbutu and Mark D. Willis (June 30, 2003)

East Lake Blockup: Archaeological Survey and Testing at Eighteen Sites in Far East El Paso County, Texas, by Mark D. Willis and John A. Peterson (May 19, 2003)

Archaeological Reconnaissance of the Proposed Brazos Wind Ranch and Transmission Line in Borden and Scurry Counties, Texas, by Mark Willis and David O. Brown (April 24, 2003)

Cultural Resources Survey of U. S. Cell 44 & 83 at Webb County, North of Laredo, Texas, by Mark D. Willis and John A. Peterson (March 6, 2003).

East Lake Blockup East El Paso County, Texas: Phase II by John A. Peterson and Mark D. Willis (February 11, 2003).

Chamizal National Memorial Park Waterline Archaeological Monitoring Report by Mark D. Willis (February 4, 2003).

Archaeological Monitoring at Block 46 of the Union Plaza Historic District El Paso, Texas, by Stephen Mbutu, John Peterson and Mark D. Willis (January 30, 2003).

San Elizario Campo Santo Ground Penetrating Radar Investigations by Mark D. Willis (January 14, 2003).

Ridge View Archaeological Survey, El Paso, Texas, by Mark D. Willis (January 9, 2003).

Archaeological Investigations at 41EP5448, in Far East El Paso County, Texas, by Mark D. Willis, John A. Peterson, Stephen K. Mbutu, and David C. Garces (December 20, 2002).

H.G. Foster: Archaeological Investigations Near Smuggler's Pass by Mark D. Willis and John A. Peterson (November 20, 2002).

Archaeological Monitoring at 1008 And 1010 Myrtle, El Paso, Texas, by Stephen Mbutu and Mark D. Willis (November 10, 2002).

East Lake Blockup, East El Paso County, Texas: Phase I by Mark D. Willis and John A. Peterson (October 3, 2002).

Loop 375 Power Line Archaeological Survey by Mark D. Willis and John A. Peterson (September 16, 2002).

Santa Teresa Power Line Archaeological Survey by Mark D. Willis and John A. Peterson (September 16, 2002).

Wold Talc Company: Section 26 Archaeological Survey by Mark D. Willis and John A. Peterson (July 1, 2002).

Meadow and Saunder Cell Tower Project, Laredo, Texas, by Mark D. Willis (June 24, 2002).

Vista Del Sol Cell Tower Project, El Paso, Texas, by Mark D. Willis (May 29, 2002).

Visayan Settlement by the River: Archaeological Investigations at the Late 16th and 17th Century Site of Slug in Sitio Valladolid, Carcar Cebu by John A. Peterson and Mark D. Willis (May 3, 2002).

Mall Del Norte Cell Tower Project, Laredo, Texas, by Mark D. Willis (May 3, 2002).

The Fabens Border Crossing Project by John A. Peterson and Mark D. Willis (April 1, 2002).

The Public Service Board/El Paso Water Utilities Land Exchange in Northwest El Paso Archaeological Survey by John A. Peterson, Mark D. Willis and Timothy B. Graves (February 1, 2002).

A Five-acre Granite Quarry Archaeological Survey in Far West Hudspeth County by Mark D. Willis (November 2001).

San Elizario Plaza Monitoring Report by Mark D. Willis and John A. Peterson (November 2001).

Archaeological Monitoring of Phase I Activities For The Mission Trail Istea (Intermodal Surface Transportation Efficiency Act of 1991) Project by Mark D. Willis and John A. Peterson (October 2001).

An Archaeological Survey of a Proposed Power Line For The Wink-Craigler Well, Near Eagar, Arizona by Mark D. Willis and John A. Peterson (September 10, 2001).

An Archaeological Survey of a Proposed Powerline Crossing, Wildcat Creek Northwest of Springerville, Arizona by Mark D. Willis for Navopache Electric (September 2001).

Cultural Resources Investigations of Sections 29 And 31, Nations South Well Quadrangle, East El Paso County, El Paso, Texas, by John A. Peterson, Timothy B. Graves, and Mark D. Willis (September 2001).

Ground Penetrating Radar Survey Results from the George C. Davis, Caddo Mound State Park by Mark D. Willis (August 2001).

Archaeological Survey of the South Worsham Well Field Water Supply Project, City of Pecos, Texas: Second Phase of Investigations by Mark D. Willis, David O. Brown, Timothy Graves, and Dana Anthony (May 2001).

Cultural Resources Investigations of the El Paso Electric Company Facilities Locator Project: Coyote-Montwood Section by Mark D. Willis and John A. Peterson (March 6, 2001).

Downtown El Paso Toltec Project: Archeological Monitoring Report by Stephen K. Mbutu and Mark D. Willis (March 2001).

Archaeological Investigation of the Proposed Hueco Mountain Wind Ranch Power Development Project - El Paso Electric Co. Distribution Line Right-of-Way by Mark D. Willis and John A. Peterson (February 7, 2001)

Paso del Norte Surveying, Inc. and Crown Castle International Cell Tower Archaeological Survey by John A. Peterson and Mark D. Willis (January 22, 2001).

Proyecto Arqueo-Historico de la Frontera Norte: Informe de las Actividades Realizadas en la Temporada de Campo 1998 y el Programa de Trabajo para 2001 by Roy B. Brown and Patricia Fournier Garcia with contributions by Mark D. Willis (November 9, 2000).

Archeological Survey of The City of Pecos, Texas, South Worsham Well Field Water Supply Project, by John A. Peterson, Mark D. Willis, Dana Anthony, David O. Brown, and Timothy Graves (November 2000).

An Archaeological Clearance Survey of The Clint Independent School District Section 22, BLK 78, TWP 3, T&PRR Survey, Horizon City, El Paso County, Texas, by John A. Peterson and M. D. Willis (October 2000).

The Wild Horse Draw Human Remains Salvage Project, Van Horn, Texas, by Stephen Mbutu, John A. Peterson and Mark D. Willis (September 2000).

Clint Independent School District Horizon Blvd. Property, Horizon City, Texas, by John A. Peterson, Mark D. Willis, and Marc Thompson (September 2000).

Archaeological Survey of Electric Line Right-of-way for the Melton Residence Electric Service, Apache Creek, New Mexico, by Mark D. Willis and John A. Peterson (July 2000).

YISD/PSB Land Exchange Archaeological Project, El Paso County, Texas, by R. B. Brown, John A. Peterson and Mark D. Willis (May 2000).

The State Office Building Archaeological Project: Testing Project by Eric Bangs, Mark D. Willis, Bill Lockhart, William J. Fling III, John A. Peterson and Stephen Mbutu (March 2000).

Results of Test Excavations at Sites 41EP432 And 41EP5251 on The Mission Del Paso Campus of The El Paso Community College, Socorro, Texas, by Marc Thompson, Mark D. Willis, and John A. Peterson (March 2000).

The Public Service Board/El Paso Water Utilities Land Exchange in Northwest El Paso Archaeological Survey, by John A. Peterson, Mark D. Willis and Tim Graves.

An Archaeological Survey of the Agua Dulce Community Self Help Center, East El Paso County, Texas, by John A. Peterson, Mark D. Willis and Marc Thompson (December 1999).

An Archaeological Survey for the Clint Independent School District, East El Paso County, Texas, by John A. Peterson, Mark D. Willis and Roy B. Brown (December 1999).

Archaeological Survey for the Lower Valley Housing Corporation: Lot 8, Block 9, and Lots 3, 4, 5, 6, & 7, Block 11, Horizon Hills by John A. Peterson and Mark D. Willis (July 1999).

Cultural Resource Investigations of The El Paso Electric Company Facilities Locator Project by John A. Peterson and Mark D. Willis (May 1999).

An Archaeological Survey of The Clint Landfill in East El Paso County, Texas, with Roy B. Brown and John Peterson (May 1999).

Cultural Resource Investigations for the Northeast Runway Expansion Project, El Paso Airport, El Paso County, Texas, by John A. Peterson, Mark D. Willis and Roy B. Brown (May 1999).

Cultural Resource Investigations of Section 38, Block 79, TSP2 in East El Paso, Texas, by John A. Peterson and Mark D. Willis (May 1999).

Archaeological Survey of Electric Line Right-of-way from Pole #247 Navopache Electric Cooperative, Inc. with John Peterson (March 1999).

The Paisano Interchange Project: Cultural Resource Reconnaissance Results and Recommendations by John A. Peterson, Timothy B. Graves and Mark D. Willis (March 1999).

The Tierra Madre Housing Project: Cultural Resource Reconnaissance Results and Recommendations by John A. Peterson, Timothy B. Graves and Mark D. Willis, John A. Peterson (March, 1999).

Navopache Electric Line Survey Report submitted to the Gila National Forest, John Peterson, Stephen Mbutu and Mark D. Willis (February, 1999).

Cultural Resources Overview and Reconnaissance for Route Selection for Water Transmission Line Routes to the Jonathan Rogers Water Treatment Plant, El Paso, Texas, by John A. Peterson and Mark D. Willis (July 1998).

The Union Plaza Downtown El Paso Development Archaeological Project: Overview, Inventory and Recommendations by John A. Peterson, Stephen Mbutu, and Mark D. Willis (May 1998).

The State Office Building Archaeological Project: Overview, Inventory And Recommendations by Stephen Mbutu, John A. Peterson, and Mark D. Willis (May 1998).

The Sun Metro Lower Valley Transit Terminal Archaeological Project: Overview, Inventory and Recommendations by John A. Peterson and Mark D. Willis (April 1998).

Sawmill Archaeological Survey by John A. Peterson and Mark D. Willis (March 1998).

Survey of the Northern Hueco Mountains for Caves, Rockshelters, and Rock Art by Carlos Caraveo, Mark D. Willis and Raymond Mauldin (August 1997).

Archaeological Survey Results and Recommendations of Project 90-07 by T. Graves, M. Hernandez, M. Lopez, J. Peterson, M. Willis (January 1997).

Jornada Mogollon Structure Data: A Comparison of Structures in and Nearby the Jornada Mogollon by Mark D. Willis and Timothy Graves (July 1996).

Gallina Timber Sale by David Hill and M. Willis (August 1995).

El Paso County LVWDA Phase IIB Testing Results by D. O. Brown, T. B. Graves, J. A. Peterson (March 1995).

El Paso County Lower Valley Water District Authority Phase II Water Supply and Wastewater Project by D. Brown, T. Graves, J. Peterson, and M. Willis (February 1995).

El Paso County LVWDA Phase II Testing Results by D. O. Brown, T. B. Graves, J. A. Peterson, and M. D. Willis (December 1994).

Hotel Timber Sale Archaeological Survey by A. Gonzales-Peterson, T. Graves, C. Nightengale, J. Peterson, and M. D. Willis (November 1994).

The El Paso State Jail Project: Survey Results by T. B. Graves, J. A. Peterson, and M. D. Willis (September 1994).

Hotel Timber Sale Archaeological Survey by C. Nightengale, J. Peterson, and M. D. Willis (May 1994).

Heritage Resources Survey in Angostura Analysis Area by J. A. Peterson, T. B. Graves, and M. D. Willis (January 1994).

Jacks II Archaeological Reconnaissance-3-60 by C. B. Nightengale, J. A. Peterson, and M. D. Willis (May 1994).

The El Paso County Jail Project: Testing Results by T. B. Graves, J. A. Peterson, and M. D. Willis (June 1994).

Archaeological Investigations at Historic Sites in Socorro, Texas, by D. O. Brown, T. B. Graves, J. A. Peterson, and M. D. Willis (July 1994).

PUBLIC SERVICE

Commissioner for El Paso Historic Landmark Commission from 2002 to present.

PRESENTATIONS

"Building Empire: Excavations at the 17th Century Vista of Salug in Carcar Cebu, Philippines" with John A. Peterson, Lorylie Crisostomos, Boy Riel Gaid for the Indo-Pacific Prehistory Association, Taipei, Taiwan (September 2002).

"Mapping of Archaeological Sites and GIS" for the 2001 GIS Symposium, University of San Carlos, Cebu, Philippines (June 2001).

"GIS on an Upper Bajada Site in the Franklin Mountains" for the 2001 Council of Texas Archaeology semi-annual meeting (May 2001).

"Remote Sensing in Downtown El Paso, Texas" for the 2000 Conference on Archaeometry in Mexico City (May 2000).

"San Agustín de Callo: Two Empires in Contact in the Ecuador Highlands" with John Peterson. Brown Bag Lecture, Department of Sociology and Anthropology, UTEP (May 2000).

"Archaeological Investigations in West El Paso" for the El Paso Archaeological Society (April 2000).

"Gallina Farming Communities in North-Central New Mexico" with David V. Hill, Martha Yates, John Peterson, and Mike Bremer, at the Pecos Conference, Springerville, AZ, Session: Colorado Plateau beyond the San Juan Basin (August 1999).

"Proyecto Arqueo-Historico de la Frontera Norte" for the Jornada Mogollon Conference IX, UTEP, El Paso; with R.B.Brown, Patricia Fournier, and John Peterson.



JENNIFER ROBINS
Project Director/Senior Archaeologist

- Federal & State Cultural Resource Compliance
- Archaeological Field Director
- Archaeological Lab Supervisor

EDUCATION

B.A. Anthropology, University of Vermont 1988

RELEVANT PROFESSIONAL EXPERIENCE

Ms. Robins has over 15 years field experience in Hawaiian archaeology. She has conducted and supervised numerous technical studies and impact assessments for compliance with Sections 106 and 110 of the National Historic Preservation Act (NHPA). Her background also includes: Hazardous Waste Operations Procedures and Disposal, NAGPRA Implications and Applications, Federal Historic Preservation Law.

Ms. Robins serves as Field Director for GANDA projects in Hawaii and the Pacific. Her duties include the identification, mapping, excavation and interpretation of prehistoric and historic sites/deposits. Responsibilities also include: archival research; the supervision of archaeological field work; development of research designs and implementation of excavation strategies; recording and mapping of field data; daily crew instruction; artifact and site analysis; and report preparation.

Ms. Robins served as GANDA Field Director on the following Federal projects:

- Intensive Archaeological Survey for the McCarthy Flats and BAX Training Range Construction Projects, Schofield Barracks.
- Archaeological Phase I and Phase II Survey and Testing at West PTA Land Acquisition Area (WPAA) and PTA Trail Easement, Island of Hawai'i, Hawai'i.
- Archaeological Survey of Mākua Military Reservation Burn and Site Mitigation Survey, Island of O'ahu.

- Archaeological Testing and Evaluations of Sites at Mākua Military Reservation, O'ahu Island, Hawaii.
- Phase II Archaeological Testing for SBCT-PTA BAX and AALFTR, U.S. Army Pohakuloa Training Area, Island of Hawaii, Hawaii.

Prior to her employment with GANDA, Ms. Robins served as Project Director in with AMEC Environmental, Ogden Environmental and Energy Services, Inc., Scientific Consulting Services, and Cultural Surveys Hawaii. During this time she supervised a multitude of archaeological investigations and prepared associated technical reports for projects throughout the Hawaiian Islands, Samoa, Japan, and Okinawa.

PUBLICATIONS

Ms. Robins has prepared approximately 30 cultural resources documents in compliance with Section 106 of the National Historic Preservation Act, as amended.

TRAINING

2004 8-Hour Refresher, Hazardous Waste Operations Procedures and Disposal

2004 Hawaii State Chapter First Aid and CPR

1999 Section 106 Training

1999 Traditional Cultural Properties Seminar

1996 40 Hours, Hazardous Waste Operations Procedures and Disposal

MEMBERSHIPS

Society for Hawaiian Archaeology

Society for Vermont Archaeology



Amy L. Buffum
Senior Archaeologist

- Federal & State Cultural Resource Compliance
- Archaeological Field Director
- Archaeological Lab Supervisor

EDUCATION

B.A. Anthropology, University of Hawai'i – West O'ahu 1999

A.A. Liberal Arts, Leeward Community College 1996

RELEVANT PROFESSIONAL EXPERIENCE

Ms. Buffum has over 10 years of field experience in Hawaiian archaeology. She has conducted and supervised numerous technical studies and impact assessments for compliance with Sections 106 and 110 of the National Historic Preservation Act (NHPA). Her background also includes: Hazardous Waste Operations Procedures and Disposal, NAGPRA Implications and Applications, Federal Historic Preservation Law. Ms. Buffum is also a GIS Technician proficient in ARCGIS 8.0.

Ms. Buffum serves as Field Director for GANDA projects in Hawai'i and the Pacific. Her duties include the identification, mapping, excavation and interpretation of prehistoric and historic sites/deposits. Responsibilities also include: archival research; the supervision of archaeological field work; development of research designs and implementation of excavation strategies; recording and mapping of field data; daily crew instruction; artifact and site analysis; GIS preparation and report preparation.

Ms. Buffum served as GANDA Field Supervisor and Archaeologist on:

- Archaeological Survey for the South Range Land Acquisition Project, Schofield Barracks Military Reserve, O'ahu, Hawai'i.
- Archaeological Testing at eight sites in CCAAC, Makua Military Reservation, O'ahu, Hawai'i.
- Archaeological Survey for Stryker Brigade Combat Team (SBCT), U.S. Army Installations at Schofield Barracks, Wheeler Army Airfield and Kahuku Training Area, O'ahu, Hawai'i.
- Phase II Archaeological Testing for SBCT-PTA BAX and AALFTR, Pohakuloa Training Area, Hawai'i Island.
- Archaeological Survey for SBCT Go Areas, Pohakuloa Training Area, Hawai'i Island.
- Archaeological Survey for SBCT McCarthy Flats, Schofield Barracks Military Reserve, O'ahu, Hawai'i.

Prior to her employment with GANDA, Ms. Buffum served as archaeologist and laboratory director with Scientific Consultant Services, Inc. (SCS) where she conducted numerous archaeological investigations throughout Hawai'i and prepared associated technical reports. Prior to her employment with SCS, Ms. Buffum served as archaeologist and laboratory assistant for Ogden Environmental and Energy Services, Inc.

PUBLICATIONS

Ms. Buffum has prepared approximately 15 cultural resources documents in compliance with Section 106 of the National Historic Preservation Act, as amended.

TRAINING

2003 40 Hours, Hazardous Waste Operations Procedures and Emergency Response

2004 8-Hour HAZWOPER Refresher

2003 Hawaii State Chapter First Aid and CPR

2003 Section 106 training

MEMBERSHIPS

Society for American Archaeology
Society for Hawaiian Archaeology
Archaeological Conservancy
Sierra Club



Maria Ka'Imipono Orr
Ethnographer

MARIA EMILY KA'IMIPONO ORR, M.A.

95-230 Hokuloa Loop, Mililani, HI 96789

(808) 623-3317 * (808) 375-3317 * (808) 625-5905 Fx

kaimi@lava.net

PERTINENT PROFESSIONAL EXPERIENCE

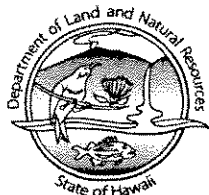
- 2004 *Hickam AFB-AW TCP/ES* for IARII/US-Hickam AW
 NASA Keck Outrigger Telescope, Mauna Kea CIS for IARII/SAIC/NASA
 Lanikai BTP/ES for IARII/Lanikai LP (on-going)
 Kaloko-Honokohau Marine Resources Study/ES for IARII/NPS
 Koko Head CIS for Haun & Associates/Wilson Okamoto, Corp./DAGS-HI
 Kea`au By-Pass Road CIS for Haun & Associates/Wilson Okamoto, Corp.
 Waine`e CIS for Ka`anapali Development Corp. (projected)
 Kaū, North Kona Phase II for Hiluhilu LLC (projected)
- 2003 *SIC Fiberoptic Cable-Kawaihae, HI CIS* for Haun & Associates/Parsons Brinckerhoff/SIC
 Kaū, North Kona CIS for Hiluhilu LLC
 Pu`u Nana, Kaluakoi, Molokai CIS for Haun & Asso/Wilson Okamoto Corp/DAGS-HI
 Lower Main, Wailuku, Maui CIS for Haun & Asso/Wilson Okamoto Corp
 Waikane TCP for IARII/US Marine Corp

- Pioneer Mill ES* for UHM-OHC
- 2002 *Pahoa/Puehuehu [Kaua`ula], Lahaina Maui CIS* for Haun & Associates/Kauaula LLC
- Kahua Ranch CIS* for Haun & Asso/ Wilson Okamoto Corp/DAGS-HI
- Honokalani/Wainapanapa State Park CIS* for Haun & Asso/
- SIC Fiberoptic Desktop Study* for Haun & Asso/SIC
- Helemano Plantation CIS* for Kusao & Kurahashi, Inc./Helemano Plantation
- 2001 *Team-Teaching: Indigenous Anthropology*, University of Hawaii-Manoa [Fall]
- Public Archaeology Project-Limahuli & Wailua, Kauai* [Archaeology Week, April]
- Launiupoko II CIS* for Haun & Asso
- Kilauea Agronomics CIS, Kauai* for Rechtman Consulting
- HIARNG Bellows CIS* for HIARNG
- Ka`anapali 2020 CIS* for Ka`anapali Dev Corp/Pioneer Mill Co.
- 2000 *Ethnographic Survey of Navy Region-Hawaii (Oahu)* for IARII/US Navy PacDiv
- Navy Region-Hawaii (Oahu)-Archival Research* for IARII/US Navy PacDiv
- ES & Preliminary Research East Lanai* for Lanai Company/Castle & Cooke
- 1999 *ES Kahanu Gardens/Hale-o-Pi`ilani* for NTBG
- Ka`ula Island TCP* for Ogden, Inc./US Navy PacDiv
- Public Archaeology Project-Limahuli* [Archaeology Week, April]
- "Healing the Hawaiian Spirit: The Implications of a Traditional Pilgrimage in the Twenty-first Century" for *Ka Huaka`i/Papa Ola Lokahi*
- 1998 *Ka`ula Island Research Summary* for *Ka Huaka`i/Papa Ola Lokahi*

Launiupoko I ES for PHRI/Haun
 Upolu Airport ES for PHRI-Rechtman/Belt-Collins
 ES Love Property-Kipahulu for CSH
 1997 **Samoan Fire-Knife Dancing** (archival research) for Tihati
 Productions-Thompson
Misc report re-writing/lab work for Cultural Surveys Hawaii
 (CSH)
Archaeology ProSeminar Lab Assistant. August 1996 - May
 1997; NAU
 1996 **Faunal Lab Manager.** August 1995 - May 1996, Northern
 Arizona University
 1995 **Field Supervisor.** Fall Elden Pueblo Public Archaeology
 Project, Flagstaff, Arizona
 1995 **Coordinator and Crewmember.** June; CSH/Hana Cultural Center,
 Hana, Maui
 1993 **Coordinator/Field Supervisor/Researcher.** 1991-1993, Hamoa,
 Hana, Maui for HCC
 1990 **Researcher-Hana, Maui.** CSH
 1990 **Emergency Inadvertent Discovery Burial Mitigation.** Hamoa
 Beach, Hana, Maui
 1990 **Crewmember.** UHM Nualolokai Archaeology Project, Na Pali,
 Kauai
 1990 **Crewmember.** Cultural Surveys of Hawaii Kukuiula Project,
 Poipu, Kauai

APPENDIX B: FEDERAL FORM 255 AND DLNR CONSIDERATION LETTER

LINDA LINGLE
GOVERNOR OF HAWAII



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

AUG 11 2004

PETER T. YOUNG
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

DAN DAVIDSON
DEPUTY DIRECTOR - LAND

YVONNE Y. IZU
DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES ENFORCEMENT
ENGINEERING

FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

Dr. John A. Peterson
Pacific Regional Manager
Garcia and Associates
146 Hekili Street
Kailua, Hawaii 96734

Dear Dr. Peterson:

Response to "Notice to Providers for Professional Services"

Thank you for your expression of interest and for submitting your resume for providing professional services.

Please be advised that your firm will be considered for providing services in accordance with the provisions of the Procurement Law when projects involving your area of expertise become available for implementation through the process as provided by law.

Sincerely,

A handwritten signature in black ink, appearing to read "Peter T. Young", is written over the word "Sincerely,".

Peter T. Young
Chairperson

July 8, 2004

Mr. Peter T. Young, Chairperson,
Department of Land and Natural Resources,
1151 Punchbowl Street, Room 130
Honolulu, Hawaii 96813

Dear Mr. Young:

Garcia & Associates is interested in being considered for the provision of services in Archaeology (9), Environmental Consulting (11), and Environmental permitting – including EA/EIS preparation (12) for projects in the Fiscal Year 2004-2005 for the Department of Land and Natural Resources. Accompanying this letter is a current Federal Standard Form 255 that documents our capabilities and qualifications to perform these services.

Please do not hesitate to call on us for assistance. Thank you for your consideration.

Yours very truly

John A. Peterson, Ph.D.
Pacific Regional Manager



STANDARD FORM (SF) 255 Architect-Engineer Related Services For Specific Project	1. Project Name/Location for which Firm is Filing: Mr Rodney K. Haraga Director of Transportation Contracts Office 869 Punchbowl Street, Room 105 Honolulu, Hawaii 96813	2b. Agency Identification Number, if any:
3. Firm (or Joint-Venture) Name & Address Garcia and Associates 1 Saunders Avenue San Anselmo, CA 94960 (Headquarters Office)	3a. Name, Title & Telephone Number of Principal to Contact Mr. John Garcia, Principal (415) 458-5803 Dr. John A. Peterson Pacific Regional Manager (808) 262-1387	3b. Address of office to perform work, if different from Item 3. Garcia and Associates 146 Hekili Street Kailua, HI 96734
4. Personnel by Discipline (column A = number of personnel assigned to this project / column B = total personnel)		
<u>4</u> Management (Officers) <u>6</u> Administrative <u>9</u> Archaeologists/Ethnographers <u>9</u> Technicians: (Arch. & Biol.)	<u>18</u> Biologists (Wildlife) <u>5</u> Botanists (Plant Ecology) <u>1</u> Wetlands Ecologists <u>7</u> Fisheries/Aquatic Biologists	<u>3</u> Environmental Planners <u>2</u> Cartographer/GIS Specialist <u>1</u> Production/Graphics <u>1</u> Technical Writer/Editors <u>66</u> Total Personnel
5. If submittal is by Joint-Venture list participating firms and outline specific areas of responsibility (including administrative, technical and financial) for each firm: (Attach SF 254 for each if not on file with Procuring Office.)		
5a. Has this Joint-Venture previously worked together: yes no		

6. If respondent is not a joint-venture, list outside key Consultants/Associates anticipated for this project (Attach SF 254 for Consultants/Associates listed, if not already on file with the Contracting Office).

Name and Address	Specialty	Worked with Prime before? (Yes or No)
Maria Ka'imipono Orr 95-230 Hokuloa Loop Mililani, Hawaii 96789	Cultural Impact Assessments Ethnographer Archaeological Studies	Yes
Bishop Museum 1525 Bernice Street Honolulu, Hawaii 96817	Faunal Investigations	Yes
Gail Murakami International Archaeological Research Institute, Inc. 2081 Young Street Honolulu, Hawaii 96826	Floral Investigations, Wood Charcoal Identification	Yes
Kepa Maly Kumu Pono Associates LLC 554 Keonaona Street Hilo, Hawaii 96720	Hawaiian Language Historical and Archival Documentary Research and Oral History Studies	Yes
John Stinton Department of Geology University of Hawaii at Manoa	Geological Studies	Yes

7. Brief resume of key persons, specialists, and individual consultants anticipated for this project.

a. Name and Title: John C. Garcia, Principal/Systems Ecologist	e. Education: Degree(s)/Year/Specialization B.A. 1968 Ecology, University of Washington M.S. 1974 Forestry Science, University of Washington
b. Project Assignment: Environmental Services; Ecological Services; Environmental Assessment	
c. Name of Firm with which associated: Garcia and Associates	f. Active Registration: First Year Registered/Discipline
d. Years experience: With This Firm 9 8 With Other Firms 27	

g. Other Experience and Qualifications relevant to the proposed project:

Mr. Garcia is the founder of GANDA which he started in December, 1994. He is responsible for the overall management of GANDA, including corporate management and quality control, and directs the wildlife biology, botany, water resources and aquatic biology, and cultural resources personnel, and for overall quality control on its projects. Prior to founding GANDA, he was vice-president of BioSystems Analysis, Inc., a firm he co-founded in 1978. Mr. Garcia has more than 26 years of experience in conducting and managing environmental studies throughout the western United States and the Pacific Rim. Mr. Garcia has managed well over a hundred projects for a wide range of clients. Projects have included major environmental planning efforts such as the Alaska Lands Study that contributed to the allocation of public lands in Alaska and the Ecological Characterization of the Pacific Northwest that provided broad constraints to coastal development. He recently managed the preparation of EIAs and mitigation planning and implementation for two large hydroelectric projects constructed in Nepal.

Mr. Garcia is a systems ecologist who specializes in procedures that define natural systems in relation to development. He has applied this expertise to such fields as fisheries, aquatic systems, wildlife ecology, ecosystems and wetlands. Mr. Garcia has directed and managed numerous baseline studies, impact assessments, siting studies, mitigation development and planning as well as mitigation implementation. He has supervised the development of several models to assess water development impacts. Projects have included flood control projects (Dry Creek), other water projects (Coastal Aqueduct II, PG&E, SCE and EBMUD facilities as well as facilities operated by Montana Power Company, mines and gravel extraction. Mr. Garcia has recently advised the Asian Development Bank on policies and best practices related to water development in Asia.

In recent years, Mr. Garcia has focused on water resource development issues. He has worked on riparian, instream flow and delta inflow issues under various regulatory requirements. He has evaluated these issues in the Pacific Northwest (Columbia River, Pend Oreille River), California (Sacramento, San Joaquin, and Mokelumne rivers, and Stevenson's, Big and Bishop creeks), Montana (Flathead River), and Nepal (Kali Gandaki and Khimti Khola rivers). For example, Mr. Garcia was Principal Investigator and project manager of the Mokelumne River Fisheries Management Plan, the Stream Corridor Inventory and Evaluation System, and many instream flow and temperature simulation studies. In addition, Mr. Garcia managed and conceived several fish population simulation models in the above systems. Mr. Garcia has also been the PI for several entrainment studies and reservoir monitoring studies. In addition, has assessed and monitored impacts on riparian communities in Bishop and Pine creeks and evaluated impacts on the Flathead, Pend Oreille river, Khimti Khola and Kali Gandaki rivers. Mr. Garcia has conducted and overseen fish spawning and mitigation surveys on the San Joaquin River, Mono Creek, Bishop Creek, Big Creek, and Pend Oreille tributaries, and on the Mokelumne River, Kali Gandaki River, Linda Creek, and Cirby Creek. In addition, Mr. Garcia evaluated impediments to passage on the above systems as well as passage problems on the Columbia River, Khimti Khola (Nepal), Andhi Khola (Nepal) and Sacramento River. Mr. Garcia was the Project Manager for a literature review and database (PROCITE) development project which addressed the impacts of water project operations on wildlife and riparian ecosystems.

Mr. Garcia completed an extensive review of fish ladder and screening alternatives and developed options for the Kali Gandaki project. The recommended ladder-type was a Pool-Weir (Ice Harbor type) or a Hybrid Weir ladder with 12% slope, notched or rounded crest and bottom ports. Design included auxiliary flows and an attraction plume and multiple entrances suitable at different flows. Mr. Garcia is also participating in evaluating alternative designs for the Khimti Khola project and has evaluated the effectiveness of ladders on the Andhi Khola, Columbia River and tributaries, and the Mokelumne River.

Mr. Garcia prepared the physical specifications and layout for a multi-species cold and warmwater hatchery in Nepal. The hatchery is designed to produce 10 million fingerlings of Asala, Mahseer and Katle. It includes research facilities for exploring hatchery production of additional species. Mr. Garcia is scheduled to oversee and provide QA for construction

of the facility in 1999-2000.

Mr. Garcia has directed numerous fishery studies. Some examples are: brown trout population model in eastern Sierra streams, developed SCIES methodology to determine fishery-value of stream corridor vegetation, determined the feasibility of restoring a creek's rainbow trout fishery, a monitoring plan for riparian mitigation for the Army Corps of Engineers, critical review of USFWS IFIM methodology, comparing factors controlling riparian vegetation in diverted and un-diverted eastern Sierra streams. Mr. Garcia also evaluated opportunities and constraints for improving fish habitat in Angora Creek in the Upper Truckee River basin.

Mr. Garcia has worked on the fate of toxins in ecosystems on several fronts. He has evaluated metals issues in the San Joaquin, Mokelumne and Sacramento watersheds. For the Ecological Characterization Study mentioned above, he helped define coastal communities and developed food webs and ecological models for all the coastal communities in northern California. Part of this effort was to establish pathways for biocontaminants.

7. Brief resume of key persons, specialists, and individual consultants anticipated for this project.

<p>a. Name and Title: John Peterson, Ph.D. Anthropologist/Archaeologist</p>	<p>e. Education: Degree(s)/Year/Specialization 1983-1988 University of Texas, Austin, Texas M.A. Anthropology 1993 University of Texas, Austin, Texas Ph.D. Anthropology</p>
<p>b. Project Assignment: Peer Review</p>	
<p>c. Name of Firm with which associated: Garcia and Associates (GANDA)</p>	<p>f. Active Registration: First Year Registered/Discipline Registered Professional Archaeologist</p>

d. Years experience: With This Firm <1 With Other Firms 20

g. Other Experience and Qualifications relevant to the proposed project:

Dr. Peterson is an anthropologist/archaeologist who has conducted Cultural Resource Management (CRM) and research investigations in the American Southwest, California and Texas; northern Mexico; and the Hawaiian Islands. He has also contributed to international studies in the Congo region of Africa, the Yangtze River region of China, and currently is Principal Investigator of a multi-year community preservation and archaeological research program in the Philippines. He has extensive experience with Section 106 of the National Historical Preservation Act (NHPA) and the National Environmental Policy Act (NEPA). He has conducted over 200 CRM projects for many federal and state agencies as well as private clients, and served for six years on the State Board of Review for the Texas Historical Commission. His research focuses on historical ecology and historical archaeology, as well as on analyses of archaeological and heritage landscapes.

Past Experience

1991-	Lecturer and Adjunct Assistant Professor of Anthropology, University of Texas at El Paso
1994-	President, New World Consultants, Inc. Assistant Professor of Anthropology University of Texas at El Paso
1995-	Director, Anthropology Research Center and Asst. Professor of Anthropology University of Texas at El Paso
1998-	Director, Asian Studies Program
2002-	Director, Cultural and Environmental Assessment Institute for Policy and Economic Development University of Texas at El Paso
	Visiting Professor, Dept. of History, University of San Carlos

7. Brief resume of key persons, specialists, and individual consultants anticipated for this project.

a. Name and Title:	Carole Taylor Garcia Operations Manager and Environmental Planner
b. Project Assignment:	Environmental Planner, NEPA coordination efforts; Environmental Assessment
c. Name of Firm with which associated:	GANDA
d. Years experience: With This Firm	8
e. Other Experience and Qualifications relevant to the proposed project:	With Other Firms 12

e. Education: Degree(s)/Year/Specialization
 *B.A. 1984 International Relations and Communication (Stanford University)
 *M.A. 2002 Geography/Resource Management and Environmental Planning (San Francisco State University)

f. Active Registration: First Year Registered/Discipline
 Association of American Geographers, 1994/Geography

g. Other Experience and Qualifications relevant to the proposed project:

Ms. Carole Taylor Garcia has fifteen years of experience in domestic and international resource management issues. Ms. Garcia has worked on a number of Environmental Impact Reports, including EIRs, EIR/EISs, EAs and comparable reports in developing countries. Ms. Garcia has worked extensively in the Pacific Islands, including American Samoa, Samoa, Palau, the Republic of the Marshall Islands (RMI), and the Commonwealth of the Northern Marianas (CNMI). Projects conducted by Ms. Garcia in the Pacific Islands include environmental impact reports, environmental assessments, master plans, social impact assessments, and planning studies. Clients include: the American Samoa Coastal Management Program/Development Planning Office, American Samoa EPA/Environmental Quality Commission, Governor's Office (American Samoa), American Samoa Dept. of Public Works, Territorial Energy Office (ASG), CNMI Coastal Resources Management Office, Office of the Governor (CNMI), and the Territorial Energy Office (RMI). In addition, Ms. Garcia has worked in the Philippines, Australia, Japan, Pakistan and Nepal on energy planning and power development projects.

Examples of Environmental Impact Assessment Projects:

- * Environmental Assessment for Proposed Harbor/Transportation Facility, Leone Village (American Samoa, ASEPA/EQC)
- * Environmental Impact Statement for a Proposed Bypass Road across Pago Pago Park (American Samoa, ASDPW & USFHW) -- included 4(f) and 6.f.3 components
- * EIA, Acquisition, Compensation and Rehabilitation Plan, Mitigation Monitoring & Management Plan and preparation of environmental contract clauses for the 144 MW Kali Gandaki "A" Hydroelectric project (Nepal, Nepal Electricity Authority, Morrison Knudsen) -- run-of-the-river hydroelectric facility with associated access roads, transmission line alignment, and above-ground facilities
- * Independent Review of Environmental Documentation of the 65 MW Khimti Khola hydroelectric project (Nepal, Morrison Knudsen)
- * EIR for the Lamorinda Recycled Water Project (Contra Costa County, CA; East Bay Municipal Utilities District, Dames & Moore)
- * EIR for a proposed private development in San Luis Obispo County (wetland, archaeological and endangered species issues) (County of San Luis Obispo)

Examples of Planning Projects:

- * Preparation of a Comprehensive Wetlands Management Plan for American Samoa (ASCMP/EDPO)
- * Resource Management Baseline Study for Tafuna Plains (American Samoa, EDPO)
- * American Samoa Economic Action Program and Five-Year Economic Development Plan (DPO, Governor's Office)
- * Redesign of the Land Use Permitting System and Preparation of Program Legislation for the Coastal Management Program. (American Samoa, ASCMP/DPO)
- * Integrated Development Plan for Leone Village (American Samoa, ASEPA/EQC)
- * Regional Land Use, Park and Transportation Planning related to the Proposed Pago Pago Bypass Road Project (American Samoa, ASDPW)
- * Development of the Targeted Investment Program for the CNMI (CNMI, Office of the Governor)
- * Institutional Strengthening of the Program and Supporting Legislation for the Coastal Resources Management Office (CNMI, CRMO)
- * Profitable Environmental Protection Project. (Vanuatu, USAID)
- * Policy Review of ADB's Policies and Mitigation Requirements Related to Hydropower Projects in SE Asia (Asian Development Bank)
- * Strategic Planning for Pakistan's Water & Power Development Authority (Pakistan, USAID)
- * Renewable Energy Applications in Industry (Australia, State of Victoria, Victoria Solar Energy Council)

8. Work by firm or joint-venture which best illustrates current qualifications relevant to this project (list not more than 10 projects).				
a. Project Name & Location	b. Nature of Firm's Responsibility	c. Project Owner's Name and Address	d. Completion Date (actual or estimated)	e. Estimated Cost (in thousands)
1. U.S. Army Engineer District Honolulu, IDIQ Contract for Historic Preservation Services throughout Pacific Region	One to three year contract to conduct federal cultural resources projects and prepare related documents in compliance with Sections 106 and 110 of the National Historic Preservation Act, as amended.	U.S. Army Engineer District, Honolulu Building 252 Fort Shafter, HI 96858-5440 Contact: Kanalei Shun 808-438-3792	2003	Entire Project \$3,000 Work for Which Firm was/is Responsible \$3,000
b. Garcia and Associates (GANDA) is providing cultural resources services under this IDIQ contract including: archaeological survey, testing, and monitoring; NRHP eligibility evaluations and nominations; and the preparation of various technical documents.				
2. U.S. Navy, PACDIV, IDIQ Contract (Honolulu Office)	One to four year contract to prepare federal cultural resources compliance documents.	Belt Collins 680 Ala Moana Blvd., 1 st Floor Honolulu, HI 96813 Contact: Sue Sakai 808-521-5361	2003	\$1,250 To be determined.
b. Garcia and Associates is a subcontractor to Belt Collins for the Navy's Pacific Division IDIQ contract for planning, architect and engineering, and technical services for the preparation of various environmental impact documents required by the government for compliance with environmental protection statutes. Garcia and Associates will provide various services necessary for compliance with the National Environmental Protection Act, Section 106 of the National Historic Preservation Act, and the Native American Graves Protection and Repatriation Act. Specific services include cultural resources studies, biological studies, and resource management planning.				
3. Sudden Ranch Victorian Residence Historic Structure Report (HSR).	NHPA, Section 106 and NEPA.	Vandenberg Air Force Base, California Contact: Mr. James Carucci (805) 606-2860	2003	\$81.9 \$35.7
b. Coordinated architect and construction contractors for materials and building systems testing to produce and HSR for the future rehabilitation of a Victorian residence constructed in 1883-1888				
4. Archival Research and	National Historic Preservation Act,	U.S. Army Corps of		

8. Work by firm or joint-venture which best illustrates current qualifications relevant to this project (list not more than 10 projects).

a. Project Name & Location	b. Nature of Firm's Responsibility	c. Project Owner's Name and Address	d. Completion Date (actual or estimated)	e. Estimated Cost (in thousands)	Work for Which Firm was/is Responsible
b. Inventoried and defined nine cultural landscapes using base GIS database and ArcInfo for 99,000 acre military base.	NHPA, Section 106, CEQA/NEPA	Parsons Brinkerhoff Quade & Douglas, Inc. 303 Second Street, Suite 700 N San Francisco, CA 94107-1317 Attn: Susan Killen, (415) 243-4637	2003	\$304	
b. Environmental document preparation and biological and cultural resources survey in support of preparation of AA/EIR/EIS/PE for the SMART commuter rail project. Wetland delineation, preparation of Natural Environment Study, CEQA/NEPA documentation, Archaeological Survey, Historical and Architectural Resource Studies, Cultural Resource Compliance Documents, public hearings and meetings.	NHPA Section 106, Caltrans guidelines.	Public Works Department Salinas, CA Contact: Ms. Kathy Wilson (831) 758-7312	2002	\$49.6	
b. Inventoried and evaluated 121 buildings in the City of Salinas and prepared HRER and HPSR documents					
10. U.S. Army Engineer District, Honolulu, IDIQ Contract for Historic Preservation Investigation Studies, Pacific Region.	NHPA, Section 106 and NEPA compliance. Integrated research management plans.	U.S. Army Corps of Engineers, Honolulu Contact: Mr. Charles Streck (808) 438-6934	1999	\$3,300	\$3,000
b. GANDA had a major task order delivery-based contract with the USACOE Pacific Division; the following are two examples of the over 40 projects conducted to-date under this contract)					
Task Order 024: Integrated Resource Management Plan/Kanaio, Maui, Hawai'i GANDA prepared an Integrated Resource Management Plan (IRMP) for the U.S. Department of Defense Legacy Resource Management Program at the Hawai'i National Guard Kanaio Training Area (KNTA). The aim of this plan (and of the one for Project J-131.026 below) is to integrate the military training mission with the protection and preservation of significant cultural resources and					

8. Work by firm or joint-venture which best illustrates current qualifications relevant to this project (list not more than 10 projects).

a. Project Name & Location	b. Nature of Firm's Responsibility	c. Project Owner's Name and Address	d. Completion Date (actual or estimated)	e. Estimated Cost (in thousands)	Work for Which Firm was/is Responsible
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important natural resources.

Task Order 026: Integrated Resource Management Plan/Nu'upia, O'ahu, Hawai'i GANDA prepared an Integrated Resource Management Plan (IRMP) for the Legacy Resource Management Program for the Nu'upia Ponds Wildlife Management Area, Marine Corps Base Hawai'i. A key element of the plan is the use of geo-processing technology to produce computer derived resource and land-use maps. Another unique feature of our approach is to use a database of the complete inventory of resources and land uses (i.e., written, oral, and mapped data) to evaluate the opportunities, constraints, and present impacts of the biophysical factor important to management planning.

9. All work by firms or joint-venture members currently being performed directly for Federal agencies.

a. Project Name & Location	b. Nature of Firm's Responsibility	c. Agency (Responsible Office) Name and Address	d. Percent Complete	e. Estimated Cost (in thousands)	
				Entire Project	Work for which Firm is Responsible
U.S. Forest Service, Open-Ended Services Plumas National Forest, Beckwourth Ranger District, California	Garcia and Associates is under contract with the U.S. Forest Service to provide surveys and reports for botanical, aquatic, and terrestrial species, and cultural resources on a series of Northern California federal forests. (J264)	Dennis Chester, Plumas National Forest, 530.836.2575; Rob O'Hanlon, Plumas National Forest, 530.283.0555; Gary Rotta, Plumas National Forest, 530.283.0555	ON-CALL 100% of open tasks completed	Tasks to date: \$706	100%
U.S. Forest Service, Chester Airport Environmental Assessment	GANDA is under contract with the USFS to prepare the Draft and Final Environmental Assessment for the Chester Airport Safety Clearance project. (J372)	Don Tinsley Lassen National Forest 2550 Riverside Drive Susanville, CA 96130 530.252.6407	80%	\$63	100%
U.S. Forest Service Graphics	GANDA is providing graphic products to the Forest Service, including visitor maps, wilderness maps, other recreational maps and recreational brochures. Task orders to date include, for example, Summer and Winter OHV Maps and Guides, a prototype for the forthcoming revised Pacific Crest Trail Map and Brochure, and a Tribal Timeline. (J5032)	Susan Lam USDA Forest Service Pacific Southwest Region 800 Buchanan St., West Annex Albany, CA 94710 510.559.6341	100%	NTE \$50, awarded to date: \$8.8	100%
U.S. Forest Service Region 1 NEPA Services	Garcia and Associates is the prime contractor to provide as-needed services in support of natural and land management activities on USFS Region 1 lands. Work areas will include: NEPA and related or separate/selected studies and analyses and environmental and heritage related studies and analyses. (J5028)	Sarah Langston USFS Region 1 406.329.3657	No task orders issued to date		

9. All work by firms or joint-venture members currently being performed directly for Federal agencies.

a. Project Name & Location	b. Nature of Firm's Responsibility	c. Agency (Responsible Office) Name and Address	d. Percent Complete	e. Estimated Cost (in thousands)	
				Entire Project	Work for which Firm is Responsible
U.S. Forest Service TU10 Great Grey Owl	GANDA is under contract with the USFS to conduct protocol level surveys for great grey owl. (J1225)	Sue Wickman Plumas National Forest P.O. Box 11500 159 Lawrence Street Quincy, CA 95971 530.283.7766	40%	\$76	100%
U.S. Forest Service TU9 Spotted Owl	GANDA is under contract with the USFS to conduct protocol level surveys for California spotted owl. (J1222)	Bill Smith Plumas National Forest 159 Lawrence Street Quincy, CA 95972 530.283.7746	40%	\$9.5	100%
U.S. Forest Service Region 2 Botanical Species Accounts	GANDA is providing services to complete assessment reports on six plant species in Region 2 of the USFS. The reports describe the biology, ecology, and status to determine effects of management on species viability in the Rocky Mountain Region. (J5030)	Joy Bartlett USFS Region 2 P.O. Box 25127 Lakewood, CO 80225-0127 303.275.5556	75%	\$57	100%
Army Corps of Engineers	GANDA has an IDIQ to provide archaeological services for DOD facilities throughout its Pacific Region.	USACOE Honolulu Building 252 Fort Shafter, HI 96858 808.438.6934	70% of contracted tasks completed	NTE \$3,000 \$2669 contracted	95%
Army Corps of Engineers	GANDA was recently awarded a second IDIQ to provide archaeological services for DOD facilities throughout its Pacific Region.	USACOE Honolulu Building 252 Fort Shafter, HI 96858 808.438.6934	20% of contracted tasks completed	NTE \$3,000 \$220 contracted	100%
Army Corps of Engineers	GANDA has an IDIQ to provide biological services for DOD facilities throughout San Francisco District's footprint. (J317)	USACOE San Francisco District 333 Market St. San Francisco, CA 94105-2197 916.557.5228 Contract Specialist	80% of contracted tasks completed	NTE \$2,000 \$510 contracted	60% est.

10. Use this space to provide any additional information or description of resources (including and computer design capabilities) supporting your firm's qualifications for the proposed project.

OVERVIEW

Garcia & Associates (GANDA) provides high quality professional consulting services in a wide range of environmental arenas. GANDA specializes in:

Natural Resources

- Threatened, Endangered and Sensitive Species
- Wildlife and Fisheries Biology
- Botany and Rare Plants
- Freshwater and Marine Aquatic
- Wild and Scenic Rivers
- Estuarine Environments
- Marine Environments
- Wetland Resources

Cultural Resources

- Prehistoric Archaeology
- Historic Archaeology
- Ethnography
- Oral History

Resource Planning

- Environmental Impact Statements and Reports, including Section 4(f) and 6.F.3 Conversion Assessments
- Mitigation Design
- Socio-Economic Impacts
- Resource Management Planning
- Integrated Management Planning
- Geographic Information System development and analysis (ArcInfo and ArcView)

GANDA's clients include the federal government, the governments of all western states, including Hawaii and Alaska, public and private utilities, local governments, private companies such as Exxon, Texaco, Chevron, and ARCO, many state and federal agencies including Caltrans, Bureau of Land Management, Federal Highways Administration, U.S. Fish and Wildlife Service, U.S. Army Corps of Engineers, CPUC, California State Lands Commission, California Department of Fish and Game, and many other private and public sector entities. Detailed descriptions of recent projects completed by GANDA and key GANDA personnel are provided below.

Most of GANDA's staff have advanced degrees and 10-20 years of experience in the consulting business. We maintain professional credibility by providing our services in a reasoned, balanced approach based on sound science and analysis. Our staff is committed to meeting clients' needs, while maintaining a high degree of professional integrity. The staff has completed projects that range from multi-year, million-dollar planning or impact studies for large facilities to focused studies with short deadlines and limited budgets. We are responsive and have an extensive network of Technical Associates to assist us as needed.

The GANDA team of scientists, managers and support staff have developed sophisticated approaches to environmental review and compliance for linear development projects such as highways and roads, rail systems, transmission lines, aqueducts, fiber optic lines, and pipelines. Our work on these unique projects spans early planning, "fatal flaw"

analysis, siting studies, agency consultation, assessment of project alternatives, field surveys, mitigation planning and implementation, environmental education and worker training, construction and post-construction monitoring, and restoration.

GANDA is also involved with many other types of projects and environmental assessments, including water resource development, hydroelectric generation, cogeneration, assessing the ecological risks of toxic materials to aquatic and terrestrial ecosystems.

The GANDA team is thoroughly familiar with state and federal regulatory standards and requirements for constructing, licensing and operating public and private-sector projects. We have prepared EAs, EIRs, and EISs in compliance with NEPA and individual states' requirements (e.g., CEQA in CA), and according to FHWA's Technical Advisory T 6640.8 Guidelines. We have experience with Section 4(f) and 6.F.3 reviews. In addition, we have conducted studies and prepared documents for the Clean Water Act, Section 404b.8 Endangered Species Act, Section 7 consultation and biological assessments, FERC Exhibit W, E and 4(e) conditions, and Application for Certification of Power Plants in Oregon, Montana and California. In addition, we have contributed to the development of wetland and land use regulatory conditions in American Samoa. Our biologists are experienced with the provisions and requirements of the Federal Highway Administration (FHWA), the Federal Energy Regulatory Commission (FERC), the National Environmental Policy Act (NEPA), the regulations of the Council on Environmental Quality (CEQ), the California Environmental Quality Act (CEQA), the Clean Water Act, and other state and federal environmental acts. Our cultural resources team regularly works with Section 106 of the National Historic Preservation Act (NHPA), National Register of Historic Places (NRHP) criteria, Native American Graves Protection and Repatriation Act (NAGPRA), the American Indian Religious Freedom Act (AIRFA) and similar laws and regulations. GANDA staff have also conducted public meetings, public hearings, inter-agency scoping sessions and other coordination meetings, and have prepared Records of Decision (RODs) and permit applications on behalf of the Project Proponent according to the requirements set forth under NEPA.

GANDA was formed in December 1994 and operated as a 12-person firm specializing in a narrower range of aquatic and terrestrial ecology disciplines during 1995. In 1996, the firm added to its capabilities and project experience through the purchase of assets, including contracts, from BioSystems Analysis, Inc. John Garcia, Principal of GANDA, was an early partner in BioSystems and led, or participated in, many of BioSystems' most important projects from 1979 through 1994. GANDA now employs 39 people, maintains seven offices (four in California, and one each in Hawaii, Nevada and Montana) and has expanded its areas of specialty to provide the full complement of natural and cultural resources consulting services.

Aquatic Resources

GANDA personnel have the expertise needed to assess and mitigate impacts to fish, invertebrates, plants and algae in freshwater, estuarine, and marine ecosystems. We have designed and completed many fish population, water quality and habitat studies in streams, rivers, lakes and reservoirs of Alaska, Arizona, California, Idaho, Montana, Nevada, and Washington. We have also developed computer models to assess impacts of projects on species populations as well as on ecosystems. We are currently conducting studies of aquatic resources in California, Montana and Nepal.

GANDA's aquatic scientists have conducted many studies of streams and rivers to assess the effects of flows on water quality, habitat quantity, quality and availability, and on fish populations. Our aquatic biologists have mapped hundreds of miles of fish habitat, and have assessed stream channel stability and watershed erosion potential related to timber harvesting. We have collected habitat utilization data and developed habitat suitability indices for anadromous and resident salmonids and warm-water fishes.

Our aquatic biologists have prepared numerous EAs, EIRs and EISs for proposed projects in compliance with CEQA and NEPA. Our staff has completed studies that assessed the impacts of heavy metals and other toxic chemicals on aquatic resources in the Sacramento and Mokelumne rivers, and Mono Creek. We have contributed to many planning efforts to minimize and mitigate impacts to aquatic organisms and their habitats due to construction of housing developments, landfills, roads and freeways, hydroelectric plants, dams and diversions, and flood control projects.

Terrestrial Resources

Our terrestrial wildlife staff has proven its experience and expertise in numerous projects in national forests and elsewhere with environmental documentation, monitoring, and recommending mitigation and restoration actions. We have conducted extensive botanical studies for hydroelectric and transmission line projects throughout central and northern California, including detailed vegetation and riparian mapping using GPS and GIS programs. We also evaluated the biological resources at 27 hydroelectric facilities throughout the Sierra Nevada Mountains. We have done extended monitoring of transmission line and gas and water pipeline construction, and developed and are continuing monitoring of riparian wildlife habitat as part of a multi-agency project on the Tonto Creek in Arizona.

Additional details of some of these projects are provided in Box 7 and Box 8 of this form.

Cultural Resources

GANDA's cultural resources department has an established record in the management of cultural resources throughout California, the greater western states region, and the Hawaiian-Pacific Region. Professional expertise is offered in prehistoric archaeology, historical archaeology, ethnography, history, geomorphology, paleontology, zooarchaeology, archaeobotany, and other specialties.

GANDA staff completed several large-scale cultural resource management efforts, including the Coastal Branch, Phase II of the California Water Project, historic preservation implementation at Fort Hunter-Liggett, Monterey County, California, and a major task order delivery-based contract for the U.S. Army Corps of Engineers, Pacific Division, which covers archaeological efforts in Hawaii and other South Pacific islands.

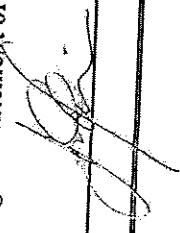
CERTIFICATIONS

GANDA is a certified 8(a) firm under the U.S. Small Business Administration's 8(a) minority/disadvantaged businesses program. In addition, GANDA is certified by the California Public Utilities Commission's Women and Minority Enterprise Clearing House as a Minority Business Enterprise (MBE). We are also certified by the California Department of Transportation (Caltrans), the Montana Department of Transportation, Idaho Transportation Department, the Arizona Department of Transportation, the Oakland Port Authority and the (CA) Regional Transit Coordinating Council (RTCC) as a Disadvantaged Business Enterprise (DBE) and Small Minority Business Enterprise (SMBE).

FACILITIES

The firm maintains seven regional offices. We maintain a fleet of trucks, including 4-wheel drive field vehicles and field equipment to mobilize extensive field efforts. In addition, GANDA has one 24-ft Farallon research vessel, a 17-foot Boston Whaler, canoes and a portable kayak, an All-terrain Vehicle, and a snowmobile, hydro-acoustic, backpack and bank electrofishing and other supporting field equipment, hand-held GPS monitoring equipment with real-time correction, and a snowmobile, hydro-acoustic, backpack and maintain excavation, surveying, preservation and processing gear. In addition, GANDA has a Geographic Information System Department with full digitizing and mapping capabilities (Arc/Info and ArcView software).

11. The foregoing is a statement of facts.

Signature:  Typed Name and Title: John C. Garcia, Principal

Date:

July 07, 2004

**APPENDIX C: SMALL BUSINESS ADMINISTRATION 8A PROGRAM AND
DBE CERTIFICATIONS**

DEPARTMENT OF TRANSPORTATION
OFFICE OF CIVIL RIGHTS
DISADVANTAGED BUSINESS ENTERPRISE (DBE)

FACSIMILE TRANSMITTAL SHEET

TO:	FROM:
John A. Peterson, Pacific Regional Mgr	Shirley Chan, DBE Staff Specialist
COMPANY:	DATE:
Garcia and Associates	10/07/04
FAX NUMBER:	TOTAL NO. OF PAGES INCLUDING COVER:
262-1384	Four
PHONE NUMBER:	SENDER'S PHONE NUMBER:
262-1387	587-2024
RE:	YOUR REFERENCE NUMBER:
DBE Cert & Procurement Info	Per your phone request

☐ URGENT ☐ FOR REVIEW ☐ PLEASE COMMENT ☐ PLEASE REPLY ☐ PLEASE RECYCLE

NOTES/COMMENTS:

As requested, the following are provided for your appropriate action:

1. DBE Certification of Eligibility dated April 19, 2001. As indicated during our earlier t/c, we received the Recertification Application and supporting documents from your firm on September 7, 2004. Your firm remains certified as a DBE with Hawaii Department of Transportation (HDOT) during the review process.
2. New State Procurement Requirements – Email from Melanie Martin, DBE Program Manager, dated April 2, 2004, to all DBEs relating to Act 52, SLH 2003, and the Bulletin from HDOT Contracts Office dated January 22, 2004.

BENJAMIN J. CAYETANO
GOVERNORBRIAN K. MINAII
DIRECTORDEPUTY DIRECTORS
GLENN M. OKIMOTO
JADINE Y. URASAKI

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
869 PUNCHBOWL STREET
HONOLULU, HAWAII 96813-5097

IN REPLY REFER TO:

DIR-CD
1.1151

April 19, 2001

Mr. John C. Garcia
Garcia and Associates
dba GANDA
1 Saunders Avenue
San Anselmo, California 94960

DBE CERTIFICATION OF ELIGIBILITY

This is to inform you that your firm, Garcia and Associates, dba GANDA, has been certified, effective April 19, 2001, as an eligible disadvantaged business enterprise (DBE) according to the requirement set forth under Sections 26.61, 26.63, 26.65, 26.67, 26.69, 26.71 and 26.73 of Title 49, Code of Federal Regulations (CFR) Part 26. This certification is valid until April 1, 2004.


Your certification as a DBE is designated as "Consultant: Natural and Cultural Resources", and will be included in our DBE Directory. The directory will be used as a referral and is available to all bidders for consideration in all federally assisted Department of Transportation (DOT) projects.

In accordance with 49 CFR 26.83 you should:

1. Each year on the firm's anniversary certification date, submit a sworn affidavit that your firm continues to meet the requirements and the first page of the previous year's U.S. Corporation/Partnership Income Tax Return or the U.S. Individual Income Tax Return (Schedule C). The change affidavit form may be downloaded from the DOT web site www.state.hi.us/dot.
2. Notify our office by submitting the change affidavit within 30 days of any changes that may affect your firm's ability to meet personal net worth, business size, ownership and control standards.
3. Report any address changes.

Thank you for your cooperation and interest in the DBE program. You may contact me at 1-808-587-2135 if you have any questions.

Sincerely yours,


Estra Quilausing
DBE Liaison Officer



U.S. SMALL BUSINESS ADMINISTRATION
WASHINGTON, D.C. 20416

SEP 11 1996

Certified Mail - Return Receipt Requested

Mr. John Garcia
Garcia and Associates
3152 Paradise Drive
Tiburon, California 94920

Dear Mr. Garcia:

Congratulations!

Your firm has been certified as a participant in the U.S. Small Business Administration's (SBA) 8(a) program. Your term of program participation is nine (9) years beginning on the date of this letter.

During participation in the 8(a) program, you will receive business development assistance from an assigned Business Opportunity Specialist in the San Francisco District Office, 211 Main Street, 4th Floor, San Francisco, CA 94105-1988. The telephone number is (415) 744-6808.

Your firm will become eligible to receive 8(a) contracts after you submit a business plan using SBA Form 1010C and receive SBA's approval of the plan. We are sending a copy of this certification letter to the SBA San Francisco District Office. As soon as that office receives the letter, you will be sent the business plan form.

SBA requires that the President or Chief Executive Officer sign a Participation Agreement to show that he or she understands the conditions of 8(a) program participation. Please read the enclosed agreement carefully, sign and date one copy, and return it to the SBA San Francisco District Office at the address shown in the second paragraph above. The second copy is for your records.

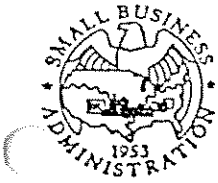
Your firm's approved Primary Standard Industrial Classification (SIC) Code is 8731. Additional SIC codes may be added during the negotiation and approval of your firm's 8(a) business plan. Contracts awarded under 8(a) program authority generally result from the self-marketing efforts of the 8(a) firm. SBA will make every effort to help you in your marketing efforts. However, please remember your firm's acceptance into the 8(a) program is not a guarantee of contract support.

We welcome you as an 8(a) program participant and look forward to working with you. Good luck with your business enterprise!

Sincerely,

Calvin Jenkins
Associate Administrator for
Minority Enterprise Development

Enclosures



U.S. SMALL BUSINESS ADMINISTRATION
WASHINGTON, D.C. 20416

December 17, 1998

Mr. John Garcia
Garcia & Associates (GANDA)
1 Saunders Ave
San Anselmo, CA 94960

Dear Mr. Garcia:

The purpose of this letter is to inform you that as a current 8(a) certified business, your firm is automatically qualified as a Small Disadvantaged Business (SDB) under the SBA's Office of Small Disadvantaged Business Certification & Eligibility.

The SDB certification will be effective for the remainder of your 8(a) program term. At that time, as an 8(a) program graduate, your firm will continue to be certified as an SDB for a period of three years from the date of its last annual review. For this reason, we encourage you to work with your Business Opportunity Specialist to complete your final annual review when the time comes (year nine of your program term).

If you wish to continue in the SDB program at the end of your term, it is your responsibility to reapply for certification by submitting an application at that time. The regulations governing the SDB program may be found at 13 Code of Federal Regulations (CFR) 124.1001-1024.

Additional information regarding the SDB program may be obtained through the Small Business Administration's website at <http://www.sba.gov>.

If you have any questions, please call us at 1-800-558-0884.

Sincerely,

Terri A. Dickerson
Acting Associate Administrator
Office of Small Disadvantaged Business
Certification & Eligibility

State of Hawaii
DEPARTMENT OF LAND AND NATURAL RESOURCES
Division of Forestry and Wildlife

November 18, 2005

Chairperson and Members
Board of Land and Natural Resources
State of Hawaii
Honolulu, Hawaii

SUBJECT: Request for Approval to Adopt Hawaii Administrative Rules,
Chapter 13-8, for the Design and Placement of Warning
Signs on Improved Public Lands

Background Information

Act 82, 2003 Session Laws Hawaii, Relating to Public Land Liability, established a legal process for installing and maintaining warning signs on improved public lands, and provides the State and Counties with protection from liability for damages caused by the dangerous natural conditions that are identified through the signage. Improved public lands, as defined by Act 82, are designated as part of the DLNR State Park system, parks, and parkways under Chapter 184 HRS, or as part of a county's park system, and lands which are part of the Hawaii Statewide Trail and Access System (Na Ala Hele) under Chapter 198D. Act 82 contained a provision for the promulgation of Hawaii Administrative Rules (HAR) to guide the Act 82 Risk Assessment Working Group (RAWG) and DLNR in the design and placement of warning signs.

The draft HAR was approved for public hearing by the Board in February, 2005, and by the Governor in May, 2005. Upon Board and Governor's approval of the proposed HAR, the next step, as described in Act 82, is for the Board to approve the actual signs and designated placement. A document for that purpose is being prepared for Board review and approval in the future.

Public Hearing on the Proposed HAR

The public hearing underwent legal notice requirements and a DLNR press release, and was conducted on August 23, 2005 on Oahu at 6:00 p.m. at the Kalanimoku building. Attendance included four Risk Assessment Working Group Members (RAWG): the representative of the Office of the Attorney General, the Administrators of DOFAW and State Parks, and the Na Ala Hele Program Manager (Chairperson's designee for RAWG and the Board appointed Hearing Master.) Three members of the public attended the hearing.

General Description of the Testimony

One individual submitted only oral testimony in favor of the HAR, and a representative of the Consumer Lawyers of Hawaii (CLH) submitted both oral and written testimony, suggesting some general and specific revisions. No further written testimony was received by the September 8th deadline. The written and oral testimony from CLH was directed at specific sections and, with a few exceptions, has been incorporated into the proposed final version of the HAR.

CLH suggestions have improved the clarity and application of the HAR. The primary concern as expressed by the CLH was that the definitions and use of the signal words “Caution”, “Warning” and “Danger” should not reflect simply potential exposure to a dangerous natural condition, but rather the potential degree of harm resulting from that exposure. This is a conceptual change that has been incorporated in the final language, but one that does not significantly alter the original intent of the HAR as they appeared prior to public comment. CLH disagreed with the smaller sign dimension for areas accessible only by pedestrian travel. The minimum size has been increased – but due to the physical limitations of transporting the larger dimension signs for potentially several miles on foot to a remote location, staff did not increase the dimension as indicated in CLH testimony.

The attached Exhibit’s 1 and 2 provide expanded detail via the minutes of the August 23, 2005 Public Hearing, which explains the rationale for revision of language based upon written testimony and discussion at the public hearing; and a copy of the HAR in a Ramseyer format to clearly show and track the changes in language from the original HAR. It is staff’s opinion that these revisions constitute minor technical and stylistic changes. Exhibit 3 is the proposed final version of the HAR for your consideration and approval.

RECOMMENDATION:

That the Board:

1. Approve the public hearing minutes, and concur with the changes as described and adopts the proposed new Chapter 13-8, HAR, for the Design and Placement of Warning Signs on Improved Public Lands.
2. Direct staff to forward the proposed final HAR to the office of the Attorney General for approval as to form, the Governor, and Lieutenant Governor for filing.

Respectfully submitted,

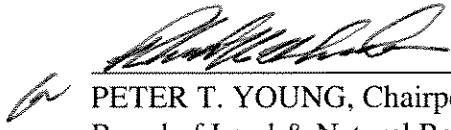


PAUL J. CONRY
Administrator

Attachments:

- Exhibit 1: Minutes of the August 23 Public Hearing
- Exhibit 2: Chapter 13-8 HAR (Ramseyer format to compare revisions)
- Exhibit 3: Chapter 13-8 HAR (Final)

APPROVED FOR SUBMITTAL:



PETER T. YOUNG, Chairperson
Board of Land & Natural Resources

Exhibit #1 for BLNR Review and Approval

Minutes of the August 23, 2006 Public Hearing on: Proposed Hawaii Administrative Rules, Title 13, Chapter 8, The Design and Placement of Warning Signs on Improved Public Land Kalanimoku Building, Room 132, 1151 Punchbowl Street, Honolulu

1. Opening Remarks

At 6:00 p.m., August 23, 2006, the Public Hearing is called to order by Curt Cottrell, of DLNR, Division of Forestry and Wildlife - Na Ala Hele Trails and Access Program Manager (hereinafter referred to as Staff). Staff then explained that he is the Board's designee to conduct the public hearing, and then introduced: Cindy Inouye, Deputy Attorney General, Dan Quinn, Administrator of the Division of State Parks, Paul Conry, Administrator of DOFAW, and indicated that these individuals are members of the Act 82 Risk Assessment Working Group (RAWG).

Staff explained that the purpose of the hearing is to consider testimony on the proposed adoption of: Hawaii Administrative Rules, Title 13, Chapter 8, The Design and Placement of Warning Signs on Improved Public Land (Rules) and that the authority for these Rules is pursuant to: Act 82, Session Laws of Hawaii 2003, Relating to Public Land Liability

2. Notice of Public Hearing

Staff indicated that the notices for this public hearing were posted in: Honolulu Star Bulletin and the Maui News on Sunday, July 17, and the Hawaii Tribune Herald, West Hawaii Today and the Garden Isle Newspaper on Monday July 18th, in addition to the DLNR and State of Hawaii Internet sites.

3. Public Hearing Procedure

Staff asked participants to please sign-in and print their address so that there would be a complete record of who attended the hearing, and, if presenting testimony, to check the column labeled "Testimony" on the sign-in sheet. Participants were informed that testimony is to be presented in the order in which the names are listed. During this time, participants could then submit any written testimony they may have prepared.

4. Background Information

Staff took a few minutes to explain the course of events that have led to the decision to promulgate Rules:

- Sacred Falls Incident - May 9, 1999. This tragedy prompted the State to consider a uniform warning signage program relating to natural conditions that may cause physical harm – or close areas of public land.

Exhibit #1 for BLNR Review and Approval

- Due to growing concern about the public safety associated with potentially dangerous natural conditions at State and County Parks and Na Ala Hele trails and access roads, the Legislature passed Act 82 in 2003 to address this concern.
- To accomplish this, Act 82 included the establishment of a Risk Assessment Working Group, comprised of
 - (1) The chairperson of the board, or designee;
 - (2) The mayor of each county, or designee;
 - (3) The administrators of the department's division of forestry and wildlife and the division of state parks, or their designees;
 - (4) The attorney general, or designee; and
 - (5) A person appointed by the chairperson of the board knowledgeable in warning sign design. This is a National Park Service staff person who works on sign projects.
- The members of the RAWG have reviewed ocean safety signs established through Act 190, SLH 1996, as well as the most current warning sign standards from the American National Standards Institute (ANSI). Using the current ANSI guidelines, the RAWG drafted sign design and placement guidelines.
- These proposed Rules are the result of that effort.
- The goal is to establish a uniform design for warning signs related to reoccurring dangerous natural conditions associated with the natural environment - adjacent to the specific managed public recreational areas.
- Prototype warning signs have been developed for the following priority natural hazards: flash floods, falling rocks, hazardous cliffs, submerged hazards (no jumping or diving), as well as ancillary uniform management signs (end of trail, end of road, area closed).
- The intent is to identify locations of public exposure to potentially dangerous natural conditions that cannot be mitigated via a management action.
- The prototype signs underwent public review last year and have been modified based on those comments.
- Upon completion of this process, the public recreational user will be better informed about potentially dangerous natural conditions via uniform signage.
- The user will be able to make an informed choice prior to accessing certain areas where they may be subject to exposure to these identified, and potentially dangerous, natural conditions.

5. Procedures During the Hearing

Staff explained that compared to typical Administrative Rules, these Rules are relatively short and that they would be read aloud. Participants were asked to refer to their copy of the Rules. Next, participants were told that Staff would call on those who signed the list to submit oral testimony, and to please come up to the table and speak into the microphone. After that, Staff explained that the floor would be open to anyone else who did not have an opportunity to speak. Staff cautioned the participants to try to keep the testimonies short and specifically on the subject of these Rules, and that if there are any questions on the Rules, to raise their hand to be recognized. When given the floor, participants were instructed to present their name and questions clearly. They were then reminded that the comments were being recorded, and of the importance of being able to identify the speaker.

Exhibit #1 for BLNR Review and Approval

6. Staff Read Through the Proposed Rules.

7. Summary of Testimony

Each person that had indicated a desire to testify was called in the order listed.

- Bill Littel: Expressed considerable support of the rules as written. Suggested that the signposts, in areas where there is vehicular traffic, should have reflective material to further alert a driver at night that the sign is in place.
- Robert Toyofuku, Consumer Lawyers of Hawaii (CLH - testimony is attached to these minutes). CLH generally supported the Rules, but suggested technical improvements to specific sections, and expressed disagreement with the definitions of the signal words “Caution” “Warning” and “Danger” in section 13-8-2 and the minimum size of sign in remote areas in section 13-8-8.

The primary concern expressed by CLH related to the signal words and was that the definition should not describe the potential *exposure* to a dangerous natural condition, but rather the potential *degree of harm* resulting from that exposure. CLH was not familiar with the term “viewshed” in section 13-8-10. Staff explained that the intent was to place signs in a manner that would not affect the enjoyment of the location by the public. Example: Not placing a signs directly in front of a cascading waterfall, where the user may want to take a picture.

- Wray Taylor, II: Attended but did not submit testimony.

There was no further testimony.

8. Questions and/or Comments

Staff then opened the floor up to any further questions or comments.

There was a general question and then discussion on the method by which DLNR staff would make the determination of which sign – and corresponding signal word, to select that was the most appropriate for the specific natural hazard and its degree of danger. The following example was provided by Staff:

The Rockfall signs are to be posted in areas where there is knowledge of rockfall, or where it is determined that the potential exposure to rockfall is highly probable. Exposure to rockfall is greater when users are stationary - such as the base of waterfalls or viewpoints adjacent cliffs or road cuts. While there may the potential of rockfall along a trail, the user is transiting the feature and therefore the degree of danger is less since they are mobile.

For the use of “Warning - Falling Rocks!” the management policy is that the trail is open and the user is provided an informed choice. The sign would also say: “If you proceed, be

Exhibit #1 for BLNR Review and Approval

alert!” “Rocks may fall without warning, causing serious injury or death.”

However, for the use of “Danger – Falling Rocks!” DLNR management may have knowledge of an injury, or determine that the exposure to danger is so severe that access should be restricted. This is the situation at Manoa Falls, where staff has documented a rockfall that merits restricting the public at a certain location, and where they are stationary to view the waterfall for a period of time. The words “Do not go beyond this point” would also be included.

There was also an explanation provided by staff about the need for a smaller dimension of sign in remote areas due to the physical difficulty in transporting the large signs on foot to remote locations along a trail.

Staff requested that the CLH consider submitting alternative language to revise the definitions of the signal words, CLH indicated that they would consider that opportunity. However, no further language has been submitted by CLH.

General discussion ended.

Staff then instructed the participants that any additional written testimonies would be accepted via mail by: September 8th, 2005, to the Division of Forestry and Wildlife, 1151 Punchbowl St. #325, Honolulu HI. 96813. Attention: Curt Cottrell, and that this address is also posted in the hearing notice.

9. Decision Making on Proposed Rules

Staff then explained that after consideration of the testimony and discussion, and any further testimony received by September 8th, and that if there is no substantive changes to these proposed rules, that they would be then presented to the Board for review and approval to transmit to the Governor for final approval.

Staff expressed appreciation and gratitude to all who attended, and adjourned the public hearing.

10. The Public Hearing Adjourned @ 7:22 p.m.

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MEMO

To: Department of Land and Natural Resources
Attn: Curt Cottrell

From: Bob Toyofuku and James Krueger on behalf of Consumer Lawyers of Hawaii (CLH)

Date: August 23, 2005

Re: Proposed HAR, Title 13, Chapter 8
"Rules for Design and Placement of Warning Signs on Improved Public Lands"

The following comments are submitted on behalf of the Consumer Lawyers of Hawaii (CLH) regarding the proposed rules. The comments are set forth by section number and specific provisions. We would like to also note that individual CLH members may be submitting comments as well.

1. §13-8-2 Definitions

"Caution" and "Danger" – The proposed rules reference "low" and "high" degree of exposure....respectively in these definitions. Our concern and objection is that the standards should focus on the nature of the harm and not the potential for injury. It isn't the degree of exposure which is relevant, but rather the degree of harm (seriousness of the harm (injury)) which determines the language. We feel that the definitions need to be reworded to reflect this view.

"Danger" – The word "imminently" should be deleted. This word indicates an aspect of timing and it does not fit in this definition. Our opinion is that the reference should be to "forseeability"; in other words, a "foreseeable dangerous natural condition".

Also, the last sentence should reflect the foreseeable harm and not the exposure – "... be limited to the most extreme conditions or actions where [exposure] the foreseeable harm is potentially severe or a fatality has been documented".

"Pictogram Symbol" - we suggest that it be reworded as follows: "Pictogram symbol" means a graphic symbol which describes the dangerous natural condition, its risk of harm, and how to avoid the risk.

We have always maintained that a proper warning sign should describe the dangerous condition, the risk of harm, and how to avoid the risk.

"Warning" – the word "medium" in describing degree will cause confusion and disagreement. What is "medium" in relation to "low" or "high"? It should be deleted.

2. §13-8-8 Sign Dimensions. We feel the dimensions are too small. We suggest that it read "...accessible by vehicles shall be not less than eighteen inches by twenty four inches." The remainder of that section can be deleted.

3. §13-8-10 Placement

The word "Warning" should be deleted because there is a definition of warning in §13-8-2 and causes confusion (e.g. what about dangerous and caution signs?) It could merely read "Signs..."

The phrase "optimal visible" – what if there is no optimal visible location?

"Potential" in the 4th line – should this be "potentially"?

"Formal" entrances in the 5th line – what is meant by the word formal? It is unclear.

"View sheds" – we are not familiar with this terminology.

The sentence which begins "Signs shall be installed with the average...." is not clear. Suggest that it be rephrased.

Last sentence "signs may be affixed to posts or [needs a word], by any other method..."

4. § 13-8-11 Multiple Signs

We object to having multiple signs on the same signpost. This has the tendency to confuse or minimize certain warnings.

Exhibit #2 for BLNR Review of Revision to Original Text

HAWAII ADMINISTRATIVE RULES

TITLE 13

DEPARTMENT OF LAND AND NATURAL RESOURCES

SUBTITLE 1

CHAPTER 8

THE DESIGN AND PLACEMENT OF WARNING SIGNS ON IMPROVED PUBLIC LANDS

Subchapter 1. General Provisions

- §13-8-1 Purpose
- §13-8-2 Definitions
- §13-8-3 Severability

Subchapter 2. Standards for sign design

- §13-8-4 American National Standard Institute
- §13-8-5 Hazard labels
- §13-8-6 Pictogram symbols
- §13-8-7 Sign text
- §13-8-8 Sign dimensions

Subchapter 3. Standards for sign placement

- §13-8-9 Public use and exposure
- §13-8-10 Placement
- §13-8-11 Multiple signs

SUBCHAPTER 1

GENERAL PROVISIONS

§13-8-1 Purpose. The purpose of these rules is to establish standards to guide the department of land and natural resources and the risk assessment working group in the general design and placement of signs warning of dangerous natural conditions on improved public lands.

Exhibit #2 for BLNR Review of Revision to Original Text

§13-8-2 Definitions. As used in this chapter, unless otherwise provided or required by context:

"Alert symbol" means the triangular symbol with an exclamation mark that appears to the left of the signal word.

"ANSI" means the American National Standards Institute.

"Board" means the board of land and natural resources.

~~["Caution", when used as a signal word on a hazard label, indicates a low degree of exposure to a potentially dangerous natural condition, and is intended to alert the user to be more vigilant. If the condition is not monitored or avoided, use may result in minor or major injury.]~~

"Caution", when used as a signal word on a hazard label, indicates the potential for encountering a natural condition which if not monitored, could result in a minor or moderate injury. The signal word is intended to alert the user to be more vigilant.

~~["Danger", when used as a signal word on a hazard label, indicates a high degree of exposure to a potentially dangerous natural condition, and use may be restricted. If the user does not avoid the condition, use will likely result in serious injury or death. This signal word is to be limited to the most extreme conditions or actions where exposure is severe or a fatality has been documented]~~

"Danger", when used as a signal word on a hazard label, indicates the potential to encounter a natural condition, which if not monitored or avoided could result in severe injury or death. This signal word is to be limited to the most extreme conditions or actions where foreseeable harm is severe or a fatality has been documented at that location due to the natural condition".

"Hazard label" means a specific label on the upper portion of the sign that uses the signal words "danger, warning, or caution" in conjunction with the "alert symbol".

"Improved public lands" means lands designated as part of the state park system, parks, and parkways under chapter

Exhibit #2 for BLNR Review of Revision to Original Text

184, Hawaii Revised Statutes, or as part of a county's park system, and lands which are part of the Hawaii statewide trail and access system under chapter 198D, Hawaii Revised Statutes, excluding buildings and structures constructed upon such lands.

"Pictogram symbol" means a graphic symbol that illustrates ~~[how the user may be exposed to a dangerous natural condition and the potential consequence of the exposure.]~~ **the natural condition and its potential risk of foreseeable harm.**

"Risk assessment working group" means

- 1) The chairperson of the board, or designee;
- 2) The mayor of each county, or designee;
- 3) The administrators of the department's division of forestry and wildlife and the division of state parks, or their designees;
- (4) The attorney general, or designee; and
- (5) A person appointed by the chairperson of the board knowledgeable in warning sign design.

"Signal word" means the word ~~[or words]~~ located on a hazard label that call attention to the sign and designate a degree or level of hazard seriousness.

~~["Warning", when used as a signal word on a hazard label, indicates a medium degree of exposure to a dangerous natural condition, which, if not monitored or avoided by the user, the use may result in serious injury or death.]~~

"Warning", when used as a signal word on a hazard label, indicates the potential for encountering a natural condition, which, if not monitored or avoided by the user, may result in a moderate to serious injury, or death

§13-8-3 Severability. If any provision of this chapter or the application thereof to any person or circumstance is held invalid, this invalidity shall not affect other provisions or applications of this chapter that can be given effect without the invalid provision or

Exhibit #2 for BLNR Review of Revision to Original Text

application, and to this end, the provisions of this chapter are severable.

SUBCHAPTER 2

STANDARDS FOR SIGN DESIGN

§13-8-4 American National Standard Institute. ANSI product safety sign and label standards for format, content, and font currently in effect shall be considered in the design of the warning signs. The board and the risk assessment working group, at their discretion and if consistent with the purposes of these rules and in the public interest, may deviate from these standards.

§13-8-5 Hazard labels. Appropriate hazard labels as defined in this chapter (e.g. caution, warning, or danger) shall be used on the top of the warning sign. A triangular alert symbol with an exclamation mark shall appear to the left of the hazard label.

§13-8-6 Pictogram symbols. [~~(a) Pictogram symbols that graphically illustrate the type of human exposure and potential consequence related to exposure to the dangerous natural condition~~] **Appropriate Pictogram symbols as defined in this chapter** shall be used and placed under the hazard label.

§13-8-7 Sign text. (a) Sign text shall be used to reinforce the hazard label and pictogram as follows:

- (1) Text shall be in a headline style that uses simple and direct words;
- (2) Active rather than passive verbs shall be used. Action oriented phrases shall be put at the beginning of the sentence and not in the middle or at the end;
- (3) Adverbs that are difficult to interpret shall be avoided. There shall be no more than one clause in a sentence;
- (4) Upper case and centered type shall be avoided whenever possible;
- (5) Arial/Helvetica, Arial/Helvetica Black, Folio Medium, Franklin Gothic, Futura, or a similar style of font shall be used for the sign text;

Exhibit #2 for BLNR Review of Revision to Original Text

- (6) Colored background shall not be used for the text portion of warning signs; and
- (7) Agency identification and other agency markings shall not be placed on the front of the sign but may be placed on reverse side of sign.

(b) The board and the risk assessment working group, at their discretion and if consistent with the purposes of these rules and in the public interest may deviate from these standards.

~~§13-8-8 Sign dimensions. Sign dimensions at managed entrances to improved public land adjacent to parking areas and other locations accessible by vehicles shall be no larger than eighteen inches by twenty four inches and no smaller than twelve inches by eighteen inches. Sign dimensions at remote, interior locations and boundaries accessible by pedestrians of improved public land shall be no larger than 18" by 24" or no smaller than 9" by 15".]~~

§13-8-8 Sign dimensions. Sign dimensions at managed entrances to improved public land adjacent to parking areas and other locations accessible by vehicles shall be a minimum of eighteen inches by twenty four inches. Sign dimensions at remote, interior locations and boundaries accessible by pedestrians of improved public land shall be a minimum of twelve inches by eighteen inches.

SUBCHAPTER 3

STANDARDS FOR SIGN PLACEMENT

§13-8-9 Public use and exposure. (a) Traffic patterns and managed access points of people accessing the improved public lands shall be considered when placing signs.

(b) The type, frequency, and location of incidents or potential public exposure relating to specific dangerous natural conditions when known on the improved public lands shall be considered for sign placement.

[Eff. _____] (Auth: SLH 2003, Act 82, §2) (Imp: SLH 2003, Act 82, §2)

§13-8-10 Placement. ~~Warning~~ **S**ign(s) shall be placed at or near access points; i.e., along vehicle and

Exhibit #2 for BLNR Review of Revision to Original Text

pedestrian traffic corridors in [~~optimal~~] **clearly** visible locations placed as close as possible to the potentially dangerous natural conditions on improved public lands and at [~~formal~~] **managed and designated** entrances where the signs will be seen as users enter improved public lands. View sheds, aesthetics, and feasibility of installation shall be considered in the placement of the [~~warning~~] signs. Signs shall be installed within the average adult line of sight but outside of the general path of travel to avoid physical contact with the signs. Signs may be affixed to posts or by any other method of installation depending on the nature of the location and terrain

§13-8-11 Multiple signs. If multiple signs are installed they [~~may~~] **shall** be [~~included on the same signpost in a vertical orientation, with the most significant warning sign on top, or~~] on separate posts or in another manner that is rendered necessary due to the nature of the location and terrain. Whenever possible, installation shall attempt to minimize holes in the sign.

Exhibit #3 for BLNR Review and Approval

HAWAII ADMINISTRATIVE RULES

TITLE 13

DEPARTMENT OF LAND AND NATURAL RESOURCES

SUBTITLE 1

CHAPTER 8

THE DESIGN AND PLACEMENT OF WARNING SIGNS ON IMPROVED PUBLIC LANDS

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- §13-8-2 Definitions
- §13-8-3 Severability

Subchapter 2. Standards for Sign Design

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- §13-8-5 Hazard labels
- §13-8-6 Pictogram symbols
- §13-8-7 Sign text
- §13-8-8 Sign dimensions

Subchapter 3. Standards for Sign Placement

- §13-8-9 Public use and exposure
- §13-8-10 Placement
- §13-8-11 Multiple signs

SUBCHAPTER 1

GENERAL PROVISIONS

§13-8-1 Purpose. The purpose of these rules is to establish standards to guide the department of land and natural resources and the risk assessment working group in the general design and placement of signs warning of dangerous natural conditions on improved public lands.
[Eff. _____] (Auth: SLH 2003, Act 82, §2) (Imp: SLH 2003, Act 82, §2)

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§13-8-2 Definitions. As used in this chapter, unless otherwise provided or required by context:

"Alert symbol" means the triangular symbol with an exclamation mark that appears to the left of the signal word.

"ANSI" means the American National Standards Institute.

"Board" means the board of land and natural resources.

"Caution", when used as a signal word on a hazard label, means the potential for encountering a natural condition which if not monitored, could result in a minor or moderate injury. This signal word is intended to alert the user to be more vigilant.

"Danger", when used as a signal word on a hazard label, means the potential for encountering a natural condition, which, if not monitored or avoided, could result in severe injury or death. This signal word is for the most extreme conditions or actions where foreseeable harm is severe or a fatality has been documented at a specific location due to the natural condition.

"Hazard label" means a specific label on the upper portion of the sign that uses the signal words "danger, warning, or caution" in conjunction with the "alert symbol".

"Improved public lands" means lands designated as part of the state park system, parks, and parkways under chapter 184, Hawaii Revised Statutes, or as part of a county's park system, and lands which are part of the Hawaii statewide trail and access system under chapter 198D, Hawaii Revised Statutes, excluding buildings and structures constructed upon such lands.

"Pictogram symbol" means a graphic symbol that illustrates the dangerous natural condition and its potential risk of harm.

"Risk assessment working group" means

- (1) The chairperson of the board, or designee;
- (2) The mayor of each county, or designee;
- (3) The administrators of the department's division of forestry and wildlife and the division of state parks, or their designees;
- (4) The attorney general, or designee; and
- (5) A person appointed by the chairperson of the board knowledgeable in warning sign design.

"Signal word" means the word located on a hazard label that calls attention to the sign and designates a degree or level of hazard seriousness.

"Warning", when used as a signal word on a hazard label, indicates the potential for encountering a natural condition, which, if not monitored or avoided, may result

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in a moderate to serious injury, or death. [Eff.
] (Auth: SLH 2003, Act 82, §2) (Imp: SLH
2003, Act 82, §2)

§13-8-3 Severability. If any provision of this chapter or the application thereof to any person or circumstance is held invalid, this invalidity shall not affect other provisions or applications of this chapter that can be given effect without the invalid provision or application, and to this end, the provisions of this chapter are severable. [Eff.]
(Auth: SLH 2003, Act 82, §2) (Imp: SLH 2003, Act 82, §2)

SUBCHAPTER 2

STANDARDS FOR SIGN DESIGN

§13-8-4 American National Standard Institute. ANSI product safety sign and label standards for format, content, and font currently in effect shall be considered in the design of the warning signs. The board and the risk assessment working group, at their discretion and if consistent with the purposes of these rules and in the public interest, may deviate from these standards. [Eff.] (Auth: SLH 2003, Act 82, §2) (Imp: SLH 2003, Act 82, §2)

§13-8-5 Hazard labels. Appropriate hazard labels as defined in this chapter (e.g. caution, warning, or danger) shall be used on the top of the warning sign. A triangular alert symbol with an exclamation mark shall appear to the left of the hazard label. [Eff.] (Auth: SLH 2003, Act 82, §2) (Imp: SLH 2003, Act 82, §2)

§13-8-6 Pictogram symbols. Appropriate Pictogram symbols as defined in this chapter shall be used and placed under the hazard label. [Eff.]
(Auth: SLH 2003, Act 82, §2) (Imp: SLH 2003, Act 82, §2)

§13-8-7 Sign text. (a) Sign text shall be used to reinforce the hazard label and pictogram as follows:

- (1) Text shall be in a headline style that uses simple and direct words;

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- (2) Active rather than passive verbs shall be used. Action oriented phrases shall be put at the beginning of the sentence and not in the middle or at the end;
 - (3) Adverbs that are difficult to interpret shall be avoided. There shall be no more than one clause in a sentence;
 - (4) Upper case and centered type shall be avoided whenever possible;
 - (5) Arial/Helvetica, Arial/Helvetica Black, Folio Medium, Franklin Gothic, Futura, or a similar style of font shall be used for the sign text;
 - (6) Colored background shall not be used for the text portion of warning signs; and
 - (7) Agency identification and other agency markings shall not be placed on the front of the sign but may be placed on reverse side of sign.
- (b) The board and the risk assessment working group, at their discretion and if consistent with the purposes of these rules and in the public interest may deviate from these standards. [Eff. _____] (Auth: SLH 2003, Act 82, §2) (Imp: SLH 2003, Act 82, §2)

§13-8-8 Sign dimensions. Sign dimensions at managed entrances to improved public land adjacent to parking areas and other locations accessible by vehicles shall be a minimum of eighteen inches by twenty four inches. Sign dimensions at remote, interior locations and boundaries accessible by pedestrians of improved public land shall be a minimum of twelve inches by eighteen inches. [Eff. _____] (Auth: SLH 2003, Act 82, §2) (Imp: SLH 2003, Act 82, §2)

SUBCHAPTER 3

STANDARDS FOR SIGN PLACEMENT

§13-8-9 Public use and exposure. (a) Traffic patterns and managed access points of people accessing the improved public lands shall be considered when placing signs.

(b) The type, frequency, and location of incidents or potential public exposure relating to specific dangerous natural conditions when known on the improved public lands shall be considered for sign placement.

[Eff. _____] (Auth: SLH 2003, Act 82, §2) (Imp: SLH 2003, Act 82, §2)

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§13-8-10 Placement. Sign(s) shall be placed at or near access points; i.e., along vehicle and pedestrian traffic corridors in clearly visible locations placed as close as possible to the potentially dangerous natural conditions on improved public lands and at managed and designated entrances where the signs will be seen as users enter improved public lands. View sheds, aesthetics, and feasibility of installation shall be considered in the placement of the signs. Signs shall be installed with consideration for the average adult line of sight but outside of the general path of travel to avoid physical contact with the signs. Signs may be attached to posts or by any other method of installation depending on the nature of the location and terrain.[Eff.]
(Auth: SLH 2003, Act 82, §2) (Imp: SLH 2003, Act 82, §2)

§13-8-11 Multiple signs. If multiple signs are installed they shall be on separate posts or in another manner that is rendered necessary due to the nature of the location and terrain. Whenever possible, installation shall attempt to minimize holes in the sign.
[Eff.] (Auth: SLH 2003, Act 82, §2) (Imp: SLH 2003, Act 82, §2)